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Crustal Dynamics Project Data Analysis

Fixed Station VLBI Geodetic Results

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J.W. Ryan and C. Ma
Goddard Space Flight Center
Greenbelt, Maryland

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J.W. Ryan and C. Ma

July 8, 1985

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CRUSTAL DYNAMICS PROJECT FIXED STATION GEODETIC RESULTS

I. INTRODUCTION

This report to the Crustal Dynamics Project Data Information System (CDP-DIS) documents the results obtained by the Goddard VLBI Data Analysis Team in analyzing the CDP fixed station VLBI observing sessions between 1976 and the end of 1984. Also included are results from: 1) earth rotation observing sessions of the IRIS Program (formerly POLARIS Project) coordinated by the National Geodetic Survey (NGS) from its inception until the end of 1984; 2) data acquired between base stations taken as part of CDP mobile operations; and 3) data acquired between base stations and the mobile VLBI site at Platteville, CO. The Platteville site is occupied for the dual purposes of western regional motion and continental plate stability measurements.

The results presented here are complete in that they include all available relevant data and supersede results given in all previous submissions. The values presented are the result of a new weighted-least-squares adjustment using most of the Mark III geodetic data acquired with fixed stations between 1979 and 1984. This solution, called S284C, is discussed below.

II. OBSERVATIONS

A. Instrumentation

Data prior to 1979 were acquired using the Mark I data system, those afterwards with the Mark III data system. The primary differences between the two systems as used in CDP and IRIS/POLARIS observations are the recorded bandwidth (360 kHz for Mark I, 28 MHz for Mark III), number of frequency bands (X-band, S- and X-band), recording mode (5 channels multiplexed, 14 simultaneously recorded channels), and length of the recording for each observation (180 sec, 100-800 sec). Realtime logging of pressure, temperature, relative humidity, and cable length calibrations is an integral part of the Mark III system. Meteorological data prior to 1979 were obtained from the nearest Weather Bureau station. Hydrogen masers provided both time and frequency for all observing sessions. The receivers had 400 MHz bandwidth at X-band and 80 MHz at S-band. A single phase calibration frequency was used in each recorded channel to remove instrumental dispersion.

Table 1 describes the radio telescopes employed in the observing sessions. The 8-character station names are used throughout this report.

B. Observing Sessions

Table 2 is a summary of the observing sessions discussed here. Each line corresponds to one observing session and contains the date the session began, the purpose of the session, and the fixed stations which participated. PLATTVIL is also included. Many of the sessions listed also involved mobile stations. For a discussion of the mobile results through the Sept. 1984, the reader should consult the JPL reports to the CDP-DIS. Responsibility for reporting mobile results from data taken after Sept. 1984 rests with NGS. In future reports to the CDP-DIS we will present mobile data analyzed as part of our investigations under the CDP AO as well as fixed station results.

The purposes of the various session types are as follows:

North American Plate Stability. US transcontinental sessions designed to measure the stability of the North American Plate.

Transatlantic. US to Europe sessions designed to measure motion between North

America and Europe.

IRIS/POLARIS. NGS sessions designed to measure earth rotation. These sessions began in November 1980 with HAYSTACK and HRAS 085 and were scheduled every seven days. The station at Onsala, Sweden participated when possible on a monthly basis. In August 1983 operations were increased to once every five days. In late 1983 two new sites, RICHMOND and WETTZELL, were brought on line and became fully operational in 1984. Currently IRIS is undertaking one 24-hour session every five days with WESTFORD, HRAS 085, RICHMOND, and WETTZELL. Onsala is used monthly whenever possible.

Western Regional, sessions involving mobile stations designed to measure the stability of the North American Plate over relatively long baselines in the western US.

California, sessions involving mobile stations operating exclusively in California. Measurements across the San Andreas fault are the primary objectives of these sessions.

Source Survey, sessions designed to test candidate sources for future geodetic use. These sessions usually involve transcontinental and intercontinental baselines. Since scans on the new sources are scheduled only in sufficient numbers to obtain estimates of their resolved flux and to make initial position estimates, these sessions provide geodetic information which is only marginally useful.

Pacific Basin, sessions involving the site at Kashima, Japan and stations in California. Only two sessions are so designated in Table 2 and they occur in early 1984 when Kashima was first used operationally.

Western Pacific, sessions designed to measure baselines in the Pacific Basin with emphasis on the baselines in the west.

Eastern Pacific, sessions designed to measure baselines in the Pacific Basin with emphasis on the baselines in the east.

Polar, sessions involving sites in Europe, the coterminous US, Alaska, and Japan. These sessions are undertaken to link the global VLBI reference frame.

Alaskan Regional, sessions involving mobile operations in Alaska.

III. DATA ANALYSIS METHODS

A. Processing and Data Handling

The raw VLBI data tapes were processed on four hardware correlators. The Mark I tapes were processed at the Haystack Observatory on a correlator which no longer exists. More than 90% of the Mark III data discussed here was correlated by the Haystack Mark III correlator. Some recent IRIS data were correlated at the Max Planck Institute for Radio Astronomy in Bonn (FRG); this correlator is a copy of the Haystack Mark III correlator. Some data involving the Kashima site were correlated at Kashima using the Japanese K-3 correlator. For the purposes of this report the output of the three Mark III-compatible correlators can be considered indistinguishable. The output of these correlators was sent either to the analysis center at Goddard Space Flight Center or to a similar center at the NGS in Rockville, MD, where the data are organized by session and frequency band into Mark III data bases. Calibration data, solar system ephemerides, *a priori* parameter values, partial derivatives, and theoretical delays and rates are added to each data base prior to actual data analysis. In the analysis process information about editing, ambiguity resolution, solution parameterization, and data-variance-modification is added to the data bases. The final data base files are available to investigators from the CDP-DIS. The Mark III Data Base System utilities required to read the files have been implemented on HP 1000 and VAX 11/780 computer systems.

B. Models

The precession and nutation models used in the data analysis are the J2000.0 and IAU 1980 models, respectively. The *a priori* earth orientation parameters from BIH Circular D are interpolated to each observation epoch then modified by Woolard's model for short-period tidal variations in UT1. The tidal potential used to compute the effect of solid earth tides is calculated using the MIT PEP ephemeris; the values of the Love numbers are 0.60967 for Love h, 0.085 for Love l, and zero for the phase lag. General relativistic solar deflection is modeled using Einstein's value for gamma. An axis offset model is applied for each antenna where the pointing axes do not intersect. Clocks are modeled with a combination of polynomials and diurnal sinusoids. The value of the speed of light is 299,792,458. m/sec. The models are described in greater detail in NASA TM-79582.

Mark III observations are calibrated for the delay caused by charged particles in the line of sight (ionosphere and solar corona) by generating new observables which are linear combinations of the X-band (8.4 GHz) and S-band (2.3 GHz) observations. To the extent that the delay effects of charged particles have an inverse frequency-squared dependence these new observables are free of charged particle effects. The Mark I data, having only a single frequency band, are not calibrated for charged particles. Consequently the Mark I results were excluded in the computations of the baseline rates of change given in the tables. Recent work by Dr. Carl Gwinn at the Center for Astrophysics has shown promise for calibrating the Mark I data, but there was not sufficient time to carry out the Mark I calibration prior to this submission.

In general the effects of tropospheric refraction are calibrated using the Marini model; this model requires surface measurements of pressure, temperature, and relative humidity. In some cases valid meteorological measurements were not available and the Chao model, which requires only an average zenith-path-delay for each station, was used. The formulation of the Marini model was presented in our 1984 report to the CDP-DIS. Water vapor radiometer data, which can be used to calibrate the wet portion of the tropospheric delay, were either unavailable or deemed not useful for the data presented here.

Cable calibration, i.e., corrections for variations in the electrical length of the cable carrying timing signals from the maser standard to the receiver, was applied where available. Cable calibrations were unavailable for the Mark I data.

IV. DATA ANALYSIS RESULTS

A. The S284C Global Solution

The S284C source and station positions given in Tables 3 and 4, respectively, are results from a global solution generated with the program SOLV2. The 2662 adjusted parameters of the solution were the source positions except for the right ascension of 3C273B, the station positions except for HAYSTACK, earth orientation parameters for each observation day except the reference date 17 Oct 1980, and appropriate clock and atmosphere parameters. The data interval was Oct. 1980 through Sept. 1984 comprising some 46000 delay/delay rate observation pairs. Because of program and other limitations, not all the data listed in Table 2 for this interval were included. The excluded data are: 1) all observation sessions involving EFLSBERG, NRAO 140, or MARPOINT, 2) POLARIS sessions from 1980, 3) IRIS sessions from May 1984 through Sept. 1984, 4) source survey sessions, and 5) data from mobile observations. The position uncertainties listed in Tables 2 and 3 are the formal statistical errors from the global solution. Based on tests of internal and external consistency, the true source position uncertainties are probably larger by a factor of two or approximately 0″.0004, whichever is greater. The true station position uncertainties are likewise probably a factor of two larger than the formal errors given.

B. Single Observing Session Solutions

Two types of one-day solutions, one for station positions and baseline lengths and one for earth orientation parameters, are presented in the tables.

A solution was made using the complete data set for each day by adjusting the site positions (except for one site used to anchor the terrestrial reference frame) and the clock and atmosphere parameters while holding the source positions fixed at their global solution values. Since the sites were adjusted from all data simultaneously, geometric baseline closure was automatically achieved. The results from these solutions are presented in two forms - by station coordinates and by baseline lengths. Tables 6.1-6.16 present the cartesian site coordinates of the stations and their formal one-standard deviation uncertainties. It should be noted that the components depend on the a priori earth orientation parameters and that the session-to-session variability is consistent with the expected uncertainties in the Circular D values used.

Tables 7.1-7.72 present the baseline lengths and formal errors of the 72 baselines directly measured in these sessions. With one set of exceptions, the lengths presented are the chord distances between the VLBI reference points of the two antennas involved. For an antenna with intersecting axes the VLBI reference point is located at the intersection of axes. For an offset axis antenna the VLBI reference point is located the point of intersection of the fixed axis with the plane perpendicular to the fixed axis containing the moving axis. The one exception is PLATTVIL, which is occupied by mobile systems. In this case the baseline lengths are the chord distances from the fixed station VLBI reference points to monument 7258. The eccentricity data used to map the VLBI results to the monument are presented in Table 4.

For the purposes of geodetic interpretation, the HAYSTACK and WESTFORD antennas, which are only 1.24 km apart, can be considered to be identical. In the tables for HAYSTACK the results from the WESTFORD antenna have been mapped to HAYSTACK. The mapping was made using the geodetic tie between the antennas given by the S284C global solution.

Tables 7.1-7.72 also show the weighted mean baseline values, the weighted rms scatter about the mean values, and, where even a marginally useful value could be computed, the rate of change of baseline length. In general the rate of change is not presented if there were too few observing sessions or if the sessions did not span more than one year. For each mean and rate value the formal error was computed by scaling the formal error from a least-squares estimate by the Chi-square per degree of freedom of the fit. The least-squares mean and rate estimates were based on the formal standard errors of the individual baseline length values.

The data were also analyzed to estimate earth orientation parameters, and the results are presented in Table 8. Since VLBI cannot measure absolute earth orientation, a reference day was selected to fix the geographic pole and UT1 angle. The reference day is 17 October 1980, a date which is a BIH tabular day and for which a 5-station network was used. The geographic pole is defined by the values of pole position from the nearest four Circular D tabular points quadratically interpolated and applied as a priori parameters for each observation in the data set spanning 0 hr UT 17 October 1980. The rotation about the pole is defined similarly except that to each interpolated value the short period terms from Woolard's model of UT1 variation were added. The values for 17 October 1980 in Table 8 reflect these definitions. The values for pole position are identical to the Circular D values. The value for UT1 differs from the Circular D value by the tidal effect at the tabular epoch.

In these solutions, both site and source coordinates were fixed at their global solution values. Stations not included in the S284C global solution were adjusted or their data were excluded from the single-day solution. The adjusted parameters were clocks, atmospheric zenith path delays, and UT1/polar motion values. When only a single baseline was available only UT1 and one component of polar motion were estimated. Since North American baselines are predominant because of IRIS/POLARIS, the x-component is generally the single pole component estimated. In a single baseline solution the correlation between UT1 and the adjusted polar motion component is large, and both adjustments depend on the a priori value of the unadjusted component. The tabular values are the unmodified results from the single-day solutions. In particular, no smoothing has been applied, and and no corrections have been made to the UT1 values to account for tidal variations. For comparison with BIH Circular D values, the tidal terms should be removed from the values in Table 8.

The cartesian site coordinates tables, the baseline length tables and the earth orientation parameters table contain a RUN CODE for each session. This is a unique code which identifies the exact solution which produced the values given. The details of these solutions reside with the authors and are not submitted to the CDP-DIS. Copies of the solutions are, however, available to investigators if necessary.

C. Formal Errors

The formal errors for the cartesian coordinates of the sites, the baseline lengths, and the earth orientation values are computed from the covariance matrix of the relevant solution. The weights applied to each observation are composed of three terms: 1) SNR measurement error, 2) ionosphere calibration error from the SNR of S- and X-band observations, and 3) normalizing white noise root-sum-squared to each baseline. The last term is computed for each baseline such that the Chi-square-per-degree-of-freedom of the observations for each baseline is reduced to unity in the standard baseline solution. Reasonable one-sigma uncertainties are probably twice the formal errors.

Table 1

VLBI OBSERVING STATIONS

HAYSTACK, 37-m-diameter antenna at the Haystack Observatory, Westford, MA.

OVRO 130, 40-m-diameter antenna at the Owens Valley Radio Observatory, Big Pine, CA.

NRAO 140, 43-m-diameter antenna at the National Radio Astronomy Observatory, Green Bank, WV.

ONSALA60, 20-m-diameter antenna at the Onsala Space Observatory, Onsala, Sweden.

EFLSBERG, 100-m-diameter antenna of the Max Planck Institute for Radio Astronomy located near Effelsberg, FRG.

HRAS 085, 26-m-diameter antenna at the George R. Agassiz station operated by the Center for Astrophysics and located near Fort Davis, TX.

ONSALA85, 26-m-diameter antenna at the Onsala Space Observatory, Onsala, Sweden.

CHLBOLTN, 26-m-diameter antenna located in Chilbolton, England and operated by the Appleton Laboratories. (No longer in use.)

WESTFORD, 18-m-diameter antenna at the Haystack Observatory, Westford, MA.

MARPOINT, 26-m-diameter antenna of the US Naval Research Laboratory located near Maryland Point, Md.

PLATTVIL, the site of occupation by CDP mobile VLBI systems MV-2 and MV-3 located near Platteville, CO.

HATCREEK, 26-m-diameter antenna at the Hat Creek Radio Observatory, Hat Creek, CA.

MOJAVE12, 12-m-diameter antenna located at the NASA Goldstone complex near Barstow, CA and operated by the NGS.

WETTZELL, 20-m-diameter antenna located in Bavaria, FRG and operated by the German Institute for Applied Geodesy (IFAG).

RICHMOND, 18-m-diameter antenna of the NGS near Miami, FL.

KASHIMA, 26-m-diameter antenna at the Kashima Space Research Center, Kashima, Japan.

KAUAI, 9-m-diameter antenna of NASA's Spaceflight Tracking and Data Network located near Kokee' Park on Kauai in the state of Hawaii.

GILCREEK, 26-m-diameter antenna operated by the CDP and located at the NOAA/NESDIS facility at Gilmore Creek, Alaska.

KWAJAL26, 26-m-diameter TRADEX antenna operated for the US Air Force by Lincoln Laboratory in the Marshall Islands.

ALGOPARK, 46-m-diameter antenna at the Algonquin Radio Observatory near Lake Traverse, Ontario, Canada.

TABLE 2

SUMMARY OF VLBI EXPERIMENTS

DATE			EXPERIMENT PURPOSE	STATIONS																			
				HAYSTACK	OVRO 130	NRAO 140	ONSALA60	EFLSBERG	HRAS 085	ONSALA85	CHLBOLTN	WESTFORD	MARPOINT	PLATTVIL	HATCREEK	MOJAVE12	WETZELL	RICHMOND	KASHIMA	KAUAI	GILCREEK	KWAJAL26	ALGOPARK
76	9	9	N. Am. Pl. Stab.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
76	9	29	N. Am. Pl. Stab.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
76	10	4	N. Am. Pl. Stab.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
76	10	9	N. Am. Pl. Stab.	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
76	10	11	N. Am. Pl. Stab.	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
76	10	14	N. Am. Pl. Stab.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
76	12	13	N. Am. Pl. Stab.	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
76	12	15	N. Am. Pl. Stab.	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
77	3	27	N. Am. Pl. Stab.	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
77	6	26	N. Am. Pl. Stab.	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
77	9	24	Transatlantic	X	.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
77	12	13	N. Am. Pl. Stab.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
78	1	13	N. Am. Pl. Stab.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
78	2	24	Transatlantic	X	X	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
78	5	17	Transatlantic	X	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
79	8	3	N. Am. Pl. Stab.	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
79	11	25	N. Am. Pl. Stab.	X	X	X	X	X	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.
80	4	11	N. Am. Pl. Stab.	X	X	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.
80	7	26	Transatlantic	X	X	.	X	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.
80	7	27	Transatlantic	X	X	.	X	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.
80	9	26	Transatlantic	X	X	.	X	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.
80	9	27	Transatlantic	X	X	.	X	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.
80	9	28	Transatlantic	X	X	.	X	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.
80	9	29	Transatlantic	X	X	.	X	.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.
80	9	30	Transatlantic	X	X	.	X	.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.
80	10	1	Transatlantic	X	X	.	X	.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.
80	10	2	Transatlantic	X	X	.	X	.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.
80	10	16	Transatlantic	X	X	.	X	.	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.
80	10	17	Transatlantic	X	X	.	X	.	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.
80	10	18	Transatlantic	X	X	.	X	.	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.
80	10	19	Transatlantic	X	X	.	X	.	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.
80	10	20	Transatlantic	X	X	.	X	.	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.
80	10	21	Transatlantic	X	X	.	X	.	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.
80	10	22	Transatlantic	X	X	.	X	.	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.
80	11	3	Iris/Polaris	X	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.
80	12	1	Iris/Polaris	X	.	.	X	.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.
80	12	19	Iris/Polaris	X	.	.	X	.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.
81	1	7	Iris/Polaris	X	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.
81	1	22	Iris/Polaris	X	.	.	X	.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.
81	2	12	Iris/Polaris	X	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.

DATE	EXPERIMENT PURPOSE	STATIONS																			
		HAYSTACK	OVRO130	NRAO140	ONSALA60	EFLSBERG	HRAS085	ONSALA85	CHLBOLTN	WESTFORD	MARPOINT	PLATTVIL	HATCREEK	MOJAVE12	WETTZELL	RICHMOND	KASHIMA	KAUAI	GILCREEK	KWAJAL26	ALGOPARK
81 2 27	Iris/Polaris	X	.	.	X	.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.
81 3 16	Iris/Polaris	X	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.
81 5 13	Iris/Polaris	X	.	.	X	.	X	X	.	X	.	.	.	.	.	.	.	.	.	.	.
81 6 16	N. Am. Pl. Stab.	X	X	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
81 6 24	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
81 7 1	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
81 7 8	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
81 7 15	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
81 7 22	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
81 7 29	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
81 8 5	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
81 8 26	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
81 9 2	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
81 9 9	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
81 9 16	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
81 9 23	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
81 9 30	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
81 10 15	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
81 10 21	Iris/Polaris	.	.	.	X	.	X	X	.	X	.	.	.	.	.	.	.	.	.	.	.
81 10 28	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
81 11 4	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
81 11 10	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
81 11 18	Transatlantic	X	X	X	X	.	X	X	.	X	.	.	.	.	.	.	.	.	.	.	.
81 11 19	Transatlantic	X	X	X	X	.	X	X	.	X	.	.	.	.	.	.	.	.	.	.	.
81 11 24	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
81 12 2	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
81 12 16	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
81 12 22	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
81 12 29	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 1 6	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 1 13	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 1 20	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 1 27	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 2 1	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 2 10	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 2 17	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 2 24	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 3 3	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 3 10	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 3 17	Iris/Polaris	.	.	.	X	.	X	X	.	X	.	.	.	.	.	.	.	.	.	.	.
82 3 24	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 3 29	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 4 7	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 4 13	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 4 19	Iris/Polari	.	.	.	X	.	X	X	.	X	.	.	.	.	.	.	.	.	.	.	.

DATE	EXPERIMENT PURPOSE	STATIONS																			
		HAYSTACK	OVRO 130	NRAO 140	ONSALA60	EFLSBERG	HRAS 085	ONSALA85	CHLBOLTN	WESTFORD	MARPOINT	PLATTVIL	HATCREEK	MOJAVE12	WETTZELL	RICHMOND	KASHIMA	KAUAI	GILCREEK	KWAJAL26	ALGOPARK
82 4 26	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 5 3	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 5 10	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 5 17	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 6 2	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 6 7	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 6 16	Transatlantic	.	X	.	X	.	.	X	.	X	.	.	.	.	.	.	.	.	.	.	.
82 6 18	Transatlantic	X	X	.	X	.	.	X	.	X	X	.	.	.	.	.	.	.	.	.	.
82 6 19	Iris/Polaris	X	X	.	X	.	.	X	.	X	X	.	.	.	.	.	.	.	.	.	.
82 6 20	Transatlantic	X	X	.	X	.	X	X	.	X	.	.	.	.	.	.	.	.	.	.	.
82 6 21	Iris/Polaris	.	X	.	X	.	X	X	.	X	.	.	.	.	.	.	.	.	.	.	.
82 6 28	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 7 6	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 7 12	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 7 19	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 7 26	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 8 4	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 8 9	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 8 16	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 8 23	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 8 30	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 9 7	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 9 13	Iris/Polaris	.	.	.	X	.	X	X	.	X	.	.	.	.	.	.	.	.	.	.	.
82 9 20	Iris/Polaris	.	.	.	X	.	X	X	.	X	.	.	.	.	.	.	.	.	.	.	.
82 9 27	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 10 4	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 10 13	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 10 16	N. Am. Pl. Stab.	.	X	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.
82 10 17	N. Am. Pl. Stab.	.	X	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.
82 10 18	Iris/Polaris	.	X	.	X	.	X	X	.	X	X	.	.	.	.	.	.	.	.	.	.
82 10 23	N. Am. Pl. Stab.	.	X	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.
82 10 25	Iris/Polaris	.	X	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 11 1	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 11 8	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 11 15	Iris/Polaris	.	.	.	X	.	X	X	.	X	.	.	.	.	.	.	.	.	.	.	.
82 11 22	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 11 29	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 12 6	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 12 15	Transatlantic	.	X	X	X	.	X	X	.	X	.	.	.	.	.	.	.	.	.	.	.
82 12 16	Transatlantic	.	X	X	X	.	X	X	.	X	.	.	.	.	.	.	.	.	.	.	.
82 12 20	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
82 12 27	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 1 3	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 1 10	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 1 17	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.

DATE	EXPERIMENT PURPOSE	STATIONS																			
		HAYSTACK	OVRO 130	NRAO 140	ONSALA60	EFLSBERG	HRAS 085	ONSALA85	CHLBOLTN	WESTFORD	MARPOINT	PLATTVIL	HATCREEK	MOJAVE12	WETTZELL	RICHMOND	KASHIMA	KAUAI	GILCREEK	KWAJAL26	ALGOPARK
83 1 24	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 1 31	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 2 7	Iris/Polaris	.	.	.	X	.	X	X	.	X	.	.	.	.	.	.	.	.	.	.	.
83 2 14	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 2 24	N. Am. Pl. Stab.	.	X	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.
83 2 28	Iris/Polaris	.	.	.	X	.	X	X	.	X	.	.	.	.	.	.	.	.	.	.	.
83 3 7	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 3 14	Iris/Polaris	.	.	.	X	.	X	X	.	X	.	.	.	.	.	.	.	.	.	.	.
83 3 21	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 3 28	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 4 4	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 4 11	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 4 18	Transatlantic	.	.	.	X	.	.	X	.	X	.	.	.	.	.	.	.	.	.	.	.
83 4 25	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 5 2	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 5 5	Transatlantic	X	.	.	X	X	X	X	.	X	.	.	.	.	.	.	.	.	.	.	.
83 5 9	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 5 16	Iris/Polaris	.	.	.	X	.	X	X	.	X	.	.	.	.	.	.	.	.	.	.	.
83 5 23	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 5 31	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 6 6	N. Am. Pl. Stab.	.	X	.	.	.	X	.	.	X	.	X	X	.	.	.	.	.	.	.	.
83 6 7	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 6 9	N. Am. Pl. Stab.	.	.	.	.	.	X	.	.	X	.	X	X	.	.	.	.	.	.	.	.
83 6 13	Iris/Polaris	.	.	.	X	.	X	X	.	X	.	.	.	.	.	.	.	.	.	.	.
83 6 20	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 6 27	N. Am. Pl. Stab.	.	X	.	.	.	X	.	.	.	.	.	X	X	.	.	.	.	.	.	.
83 6 28	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	X	.	.	.	.	.	.	.
83 6 29	N. Am. Pl. Stab.	.	X	.	.	.	X	.	.	.	.	.	X	X	.	.	.	.	.	.	.
83 7 5	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 7 11	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 7 25	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	X	.	.	.	.	.	.	.
83 8 1	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 8 8	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	X	.	.	.	.	.	.	.
83 8 15	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 8 22	West. Reg.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.
83 8 22	N. Am. Pl. Stab.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.
83 8 22	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 8 23	N. Am. Pl. Stab.	.	X	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.	.
83 8 25	N. Am. Pl. Stab.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.
83 8 27	N. Am. Pl. Stab.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.
83 8 29	Iris/Polaris	.	.	.	X	.	X	X	.	X	.	.	.	.	.	.	.	.	.	.	.
83 8 30	Transatlantic	X	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.
83 8 31	West. Reg.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.
83 9 2	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 9 7	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.

DATE	EXPERIMENT PURPOSE	STATIONS																			
		HAYSTACK	OVRO 130	NRAO 140	ONSALA60	EFLSBERG	HRAS 085	ONSALA85	CHLBOLTN	WESTFORD	MARPOINT	PLATTVIL	HATCREEK	MOJAVE12	WETTZELL	RICHMOND	KASHIMA	KAUAI	GILCREEK	KWAJAL26	ALGOPARK
83 9 12	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 9 17	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 9 22	Iris/Polaris	.	.	.	X	.	X	X	.	X	.	.	.	.	.	.	.	.	.	.	.
83 9 23	Transatlantic	X	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.
83 9 27	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	X	.	.	.	.	.	.	.
83 10 2	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 10 7	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 10 12	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	X	.	.	.	.	.	.	.
83 10 17	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 10 22	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 10 27	Iris/Polaris	.	.	.	X	.	X	X	.	X	.	.	.	X	.	.	.	.	.	.	.
83 10 28	Transatlantic	X	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.
83 10 31	West. Reg.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.
83 11 1	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 11 5	West. Reg.	.	X	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.	.
83 11 6	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 11 8	West. Reg.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.	.
83 11 11	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 11 12	West. Reg.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.
83 11 16	Iris/Polaris	.	.	.	X	.	X	X	.	X	.	.	.	.	X	.	.	.	.	.	.
83 11 17	Transatlantic	X	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.
83 11 21	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	X	.	.	.	.	.	.	.
83 11 26	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 12 1	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	X	.	.	.	.	.	.	.
83 12 6	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 12 11	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 12 16	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 12 21	Iris/Polaris	.	.	.	X	.	X	X	.	X	.	.	.	.	X	X	.	.	.	.	.
83 12 22	Transatlantic	X	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.
83 12 26	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
83 12 31	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
84 1 4	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	X	.	X	.	.	.	.	.
84 1 9	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	.	.	.	.	.	.
84 1 14	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	X	.	.	.	.	.
84 1 24	Source Survey	.	.	.	X	.	X	X	.	X	.	.	.	.	X	X	.	.	.	.	.
84 1 24	Pacific Basin	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	X	.	.	.	.
84 1 29	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	.	.	.	.	.	.
84 2 3	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 2 8	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	.	.	.	.	.	.
84 2 13	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	X	.	.	.	.	.
84 2 18	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 2 20	California 84-A	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.
84 2 23	Iris/Polaris	.	.	.	X	.	X	X	.	X	.	.	.	.	X	.	.	.	.	.	.
84 2 23	California 84-B	.	X	.	.	.	.	.	.	.	.	.	X	X	.	.	.	.	.	.	.
84 2 24	Transatlantic	X	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.

DATE	EXPERIMENT PURPOSE	STATIONS																			
		HAYSTACK	OVRO 130	NRAO 140	ONSALA60	EFLSBERG	HRAS 085	ONSALA85	CHLBOLTN	WESTFORD	MARPOINT	PLATTVIL	HATCREEK	MOJAVE12	WETTZELL	RICHMOND	KASHIMA	KAUAI	GILCREEK	KWAJAL26	ALGOPARK
84 2 24	Pacific Basin	.	.	.	.	.	.	.	.	.	.	.	X	X	.	.	X	.	.	.	.
84 2 26	California 84-C	.	X	.	.	.	.	.	.	.	.	.	X	X	.	.	.	.	.	.	.
84 2 28	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	.	.	.	.	.	.
84 2 29	California 84-D	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.
84 3 3	California 84-E	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.
84 3 4	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 3 9	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	.	.	.	.	.	.
84 3 14	Iris/Polaris	.	.	.	X	.	X	X	.	X	.	.	.	.	X	.	.	.	.	.	.
85 3 15	Source Survey	.	.	.	X	.	X	X	.	X	.	.	.	.	.	.	.	.	.	.	.
84 3 19	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 3 25	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 4 3	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 4 8	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 4 9	California 84-F	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.
84 4 12	California 84-G	.	X	.	.	.	.	.	.	.	.	.	X	X	.	.	.	.	.	.	.
84 4 13	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 4 17	West Reg. 84-H	.	.	.	.	.	X	.	.	.	.	X	X	X	.	.	.	.	.	.	.
84 4 18	Iris/Polaris	.	.	.	X	.	X	X	.	X	.	.	.	.	X	X	.	.	.	.	.
84 4 19	Transatlantic	X	X	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.
84 4 21	West Reg. 84-I	.	.	.	.	.	X	.	.	.	.	.	X	X	.	.	.	.	.	.	.
84 4 23	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 4 25	West Reg. 84-J	.	.	.	.	.	X	.	.	.	.	X	X	X	.	.	.	.	.	.	.
84 4 26	N. Am. Pl. Stab.	X	X	.	.	.	X	.	.	.	.	X	X	X	.	.	.	.	.	.	.
84 4 28	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 5 3	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	.	.	.	.	.	.
84 5 8	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	.	.	.	.	.	.
84 5 13	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	.	.	.	.	.	.
84 5 18	Iris/Polaris	.	.	.	X	.	X	X	.	X	.	.	.	.	X	.	.	.	.	.	.
84 5 19	Iris/Polaris	X	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.
84 5 23	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	.	.	.	.	.	.
84 5 28	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 6 2	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 6 7	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 6 12	Iris/Polaris	.	.	.	X	.	X	X	.	X	.	.	.	.	X	X	.	.	.	.	.
84 6 17	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 6 22	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 6 27	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 7 2	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 7 7	East Pacific 1	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	X	X	X	.
84 7 7	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 7 12	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 7 14	Alaskan Reg. 84-K	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.
84 7 17	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 7 21	East Pacific 2	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	X	X	X	.
84 7 22	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	X	.	.	.	.	.

DATE	EXPERIMENT PURPOSE	STATIONS																			
		HAYSTACK	OVRO 130	NRAO 140	ONSALA60	EFLSBERG	HRAS 085	ONSALA85	CHLBOLTN	WESTFORD	MARPOINT	PLATTVIL	HATCREEK	MOJAVE12	WETTZELL	RICHMOND	KASHIMA	KAUAI	GILCREEK	KWAJAL26	ALGOPARK
84 7 23	Alaskan Reg. 84-L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.
84 7 27	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	.	X	.	.	.	.	.
84 7 28	West Pacific 1	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	X	X	X	X	.
84 7 31	Alaskan Reg. 84-M	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.
84 8 1	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 8 4	West Pacific 2	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	X	X	X	X	.
84 8 6	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 8 7	Alaska Regi. 84-N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.
84 8 11	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 8 16	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 8 21	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 8 24	N. Am. Pl. Stab. 1	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	X	.	X
84 8 26	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 8 28	N. Am. Pl. Stab. 2	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	X	.	X
84 8 30	Polar 1	X	.	.	X	.	.	X	.	.	.	.	.	X	X	.	X	.	X	.	.
84 8 31	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 9 2	Polar 2	X	.	.	X	.	.	X	.	.	.	.	.	X	X	.	X	.	X	.	.
84 9 5	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 9 10	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 9 15	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 9 20	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	.	.	.	.	.	.
84 9 25	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 9 30	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 10 5	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 10 10	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 10 15	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 10 20	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 10 22	California 84-O	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.
84 10 25	Iris/Polaris	.	.	.	X	.	X	X	.	X	.	.	.	.	X	X	.	.	.	.	.
84 10 25	California 84-P	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.
84 10 26	N. Am. Pl. Stab.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
84 10 28	California 84-Q	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.
84 10 30	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 10 31	West Reg. 84-R	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.
84 11 4	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	.	.	.	.	.	.
84 11 9	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 11 14	Iris/Polaris	.	.	.	X	.	X	X	.	X	.	.	.	.	X	.	.	.	.	.	.
84 11 15	Transatlantic	X	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.
84 11 19	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 11 24	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 11 29	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 12 4	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 12 9	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 12 14	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 12 19	Iris/Polaris	.	.	.	X	.	X	X	.	X	.	.	.	.	X	X	.	.	.	.	.

DATE	EXPERIMENT PURPOSE	STATIONS																			
		HAYSTACK	OVRO130	NRAO140	ONSALA60	EFLSBERG	HRAS085	ONSALA85	CHLBOLTN	WESTFORD	MARPOINT	PLATTVIL	HATCREEK	MOJAVE12	WETZELL	RICHMOND	KASHIMA	KAUAI	GILCREEK	KWAJAL26	ALGOPARK
84 12 23	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	X	.	.	.	.	.
84 12 29	Iris/Polaris	.	.	.	.	.	X	.	.	X	.	.	.	.	X	.	.	.	.	.	.

Table 3

Radio Source Coordinates from Global Solution S284C

Source	Right Ascension				Declination			
Name	h	m	s		°	'	"	
0106+013	1	8	38.77111	±.00001	1	35	.3206	±.0004
0133+476	1	36	58.59459	±.00012	47	51	29.1060	±.0017
0212+735	2	17	30.81337	±.00002	73	49	32.6231	±.0001
4C67.05	2	28	50.05167	±.00003	67	21	3.0313	±.0003
0229+131	2	31	45.89410	±.00001	13	22	54.7186	±.0003
0234+285	2	37	52.40572	±.00001	28	48	8.9916	±.0002
0235+164	2	38	38.93009	±.00001	16	36	59.2776	±.0005
0300+470	3	3	35.24219	±.00002	47	16	16.2783	±.0002
3C84	3	19	48.16014	±.00006	41	30	42.1041	±.0007
NRAO150	3	59	29.74734	±.00001	50	57	50.1630	±.0001
0420-014	4	23	15.80089	±.00002	- 1	20	33.0611	±.0009
3C120	4	33	11.09573	±.00009	5	21	15.6204	±.0022
0458-020	5	1	12.80990	±.00003	- 1	59	14.2540	±.0013
0528+134	5	30	56.41676	±.00001	13	31	55.1509	±.0004
0552+398	5	55	30.80568	±.00001	39	48	49.1660	±.0001
0727-115	7	30	19.11252	±.00007	-11	41	12.6015	±.0028
0742+103	7	45	33.05958	±.00010	10	11	12.6897	±.0028
OJ287	8	54	48.87493	±.00001	20	6	30.6413	±.0002
4C39.25	9	27	3.01389	±.00001	39	2	20.8520	±.0001
1144+402	11	46	58.29797	±.00001	39	58	34.3073	±.0002
3C273B	12	29	6.6997	*	2	3	8.6000	±.0004
3C279	12	56	11.16644	±.00005	- 5	47	21.5244	±.0017
1354+195	13	57	4.43661	±.00002	19	19	7.3736	±.0003
OQ208	14	7	.39436	±.00001	28	27	14.6896	±.0002
1418+546	14	19	46.59749	±.00002	54	23	14.7872	±.0002
1502+106	15	4	24.97966	±.00002	10	29	39.2004	±.0006
1548+056	15	50	35.26913	±.00001	5	27	10.4507	±.0004
1637+574	16	38	13.45626	±.00002	57	20	23.9795	±.0002
1642+690	16	42	7.84832	±.00002	68	56	39.7568	±.0002
3C345	16	42	58.80988	±.00001	39	48	36.9947	±.0001
NRAO530	17	33	2.70578	±.00005	-13	4	49.5453	±.0018
1741-038	17	43	58.85608	±.00002	- 3	50	4.6130	±.0010
1749+096	17	51	32.81844	±.00002	9	39	.7304	±.0006
1803+784	18	0	45.68388	±.00003	78	28	4.0183	±.0001
1921-293	19	24	51.05592	±.00008	-29	14	30.1143	±.0038
1928+738	19	27	48.49476	±.00013	73	58	1.5731	±.0009
3C418	20	38	37.03452	±.00004	51	19	12.6613	±.0004
2134+00	21	36	38.58629	±.00001	0	41	54.2156	±.0005
2145+067	21	48	5.45859	±.00001	6	57	38.6058	±.0004
VR422201	22	2	43.29131	±.00001	42	16	39.9821	±.0001
2201+315	22	3	14.97563	±.00002	31	45	38.2689	±.0005
2216-038	22	18	52.03775	±.00002	- 3	35	36.8771	±.0011
2234+282	22	36	22.47073	±.00002	28	28	57.4129	±.0004
3C454.3	22	53	57.74792	±.00001	16	8	53.5629	±.0003

* The right ascension origin of our celestial reference frame is fixed by the adopted given value of the right ascension of 3C273B.

Table 4

Geocentric Cartesian Site Coordinates from Global Solution S284C

SITE NAME	X-component (m)		Y-component (m)		Z-component (m)	
HAYSTACK	1492406.6910	*	-4457267.3300	*	4296882.1020	*
ONSALA60	3370608.0183	±.0078	711916.4958	±.0057	5349830.7854	±.0147
CHLBOLTN	4008311.9710	±.0103	-100651.8157	±.0063	4943794.7684	±.0155
HRAS 085	-1324209.1306	±.0025	-5332024.0230	±.0076	3232118.9580	±.0084
OVRO 130	-2409598.8604	±.0031	-4478350.4288	±.0087	3838603.7729	±.0106
WESTFORD	1492208.5576	±.0015	-4458131.3422	±.0034	4296015.8845	±.0038
MOJAVE12	-2356169.1303	±.0032	-4646756.7796	±.0099	3668471.1783	±.0115
WETTZELL	4075541.8755	±.0100	931734.2282	±.0064	4801629.3785	±.0165
HATCREEK	-2523968.0231	±.0049	-4123507.2138	±.0113	4147753.1411	±.0134
RICHMOND	961259.8698	±.0043	-5674090.9847	±.0128	2740534.2543	±.0098
GILCREEK	-2281545.2008	±.0063	-1453645.8256	±.0094	5756993.6992	±.0164
KASHIMA	-3997890.5910	±.0231	3276580.3908	±.0139	3724118.7812	±.0336
KAUAI	-5543844.2118	±.0162	-2054565.3142	±.0187	2387814.2618	±.0271
KWAJAL26	-6143534.9004	±.0306	1363995.9861	±.0229	1034707.8022	±.0374
VNDNBERG	-2678095.5009	±.0095	-4525456.4783	±.0123	3597414.3479	±.0149
ALGOPARK	918036.7287	±.0040	-4346133.0833	±.0111	4561971.5696	±.0114

* The terrestrial reference frame is fixed by the adopted value of the coordinates of HAYSTACK given above and the BIH Circular D earth orientation parameters of the reference date 17 OCT 80.

Table 5

Eccentricity Data for PLATTVIL Sessions

Vector from Monument to Mobile VLBI Reference Point

(meters)

MONUMENT to STATION		Experiment Date YY MM DD HH MM:	EAST	NORTH	UP
Experiment 83C					
7258	PLATTVIL	83 6 7 00 00	2.715	-0.082	4.181
Experiment 83D					
7258	PLATTVIL	83 6 8 00 00	2.715	-0.082	4.181
Experiment 83E					
7258	PLATTVIL	83 6 10 00 00	2.715	-0.082	4.181
Experiment 84H					
7258	PLATTVIL	84 4 18 00 00	-.051	-.006	2.755
Experiment 84I					
7258	PLATTVIL	84 4 23 00 00	-.049	-.005	2.754
Experiment 84J					
7258	PLATTVIL	84 4 26 00 00	-.051	-.005	2.751
Experiment 'Plate Stability'					
7258	PLATTVIL	84 4 27 00 00	-.051	-.005	2.751

Note: The values for Experiments 83C-E are taken from the JPL submission to the CDP-DIS titled "Current Mobile VLBI Data Base" by Kroger et al. dated July 4, 1984. The values for Experiments 84H-J are taken from JPL Interoffice Memorandum 335.1-275 titled "Site Vectors for Platteville, Flagstaff, Vandenberg, and JPL/Pending Site Surveys" by S.A. Stevens dated 15 November 1984. The values for 'Plate Stability' are identical to those for 84J, which occurred at the same site 24 hours earlier.

Table 6.1

GEOCENTRIC RECTANGULAR POSITIONS OF OVRO 130

DATE	X-COMPONENT		Y-COMPONENT		Z-COMPONENT		RUN CODE
	VALUE (m)	SIGMA	VALUE (m)	SIGMA	VALUE (m)	SIGMA	
76 9 9	-2409598.984	.02	-4478349.944	.06	3838604.556	.03	15140-142
76 9 29	-2409598.960	.02	-4478349.534	.06	3838604.618	.05	15088-173
76 10 4	-2409598.968	.02	-4478349.592	.04	3838604.704	.04	15088-175
76 10 9	-2409598.966	.02	-4478349.562	.05	3838604.549	.04	15119-200
76 10 11	-2409598.943	.02	-4478349.633	.04	3838604.479	.03	15117-234
76 10 14	-2409598.958	.02	-4478349.755	.05	3838604.561	.04	15088-180
76 12 13	-2409598.837	.01	-4478350.625	.03	3838604.057	.03	15118-
76 12 15	-2409598.889	.02	-4478350.352	.04	3838604.014	.03	15118- 2
77 3 27	-2409598.842	.01	-4478349.272	.03	3838603.110	.03	15119-193
77 6 26	-2409598.798	.02	-4478349.848	.05	3838602.961	.04	15119-202
77 12 13	-2409598.888	.02	-4478350.438	.06	3838604.336	.05	15085-221
78 1 13	-2409598.917	.02	-4478349.508	.06	3838603.922	.05	15085-222
78 2 24	-2409598.942	.02	-4478349.485	.05	3838603.709	.04	15120-180
78 5 17	-2409598.801	.02	-4478349.994	.03	3838602.915	.03	15084-191
79 8 3	-2409598.864	.01	-4478350.417	.03	3838603.577	.03	15118- 5
79 11 25	-2409598.846	.02	-4478351.107	.05	3838603.680	.05	15123-133
80 4 11	-2409598.836	.01	-4478350.170	.01	3838603.458	.01	15117-223
80 7 26	-2409598.884	.01	-4478350.091	.03	3838603.869	.03	15144-173
80 7 27	-2409598.821	.01	-4478349.777	.03	3838603.611	.03	15155-220
80 9 26	-2409598.898	.02	-4478349.804	.04	3838603.937	.04	15129-214
80 9 27	-2409598.949	.02	-4478349.828	.04	3838603.990	.04	15129-213
80 9 28	-2409598.895	.01	-4478349.772	.02	3838603.904	.02	15129-220
80 9 29	-2409598.835	.02	-4478349.591	.05	3838603.685	.05	15107-144
80 9 30	-2409598.863	.01	-4478349.907	.03	3838603.947	.03	15107-181
80 10 1	-2409598.839	.01	-4478349.959	.04	3838603.980	.03	15109- 10
80 10 2	-2409598.871	.01	-4478349.971	.03	3838603.907	.02	15107-185
80 10 16	-2409598.874	.01	-4478350.420	.02	3838603.763	.02	15129-222
80 10 17	-2409598.873	.01	-4478350.555	.03	3838603.801	.02	15129-223
80 10 18	-2409598.858	.01	-4478350.609	.02	3838603.818	.02	15129-230
80 10 19	-2409598.897	.03	-4478350.707	.06	3838603.840	.06	15129-231
80 10 20	-2409598.850	.01	-4478350.657	.02	3838603.802	.02	15130-
80 10 21	-2409598.866	.01	-4478350.636	.02	3838603.820	.02	15130- 1
80 10 22	-2409598.845	.01	-4478350.542	.02	3838603.740	.01	15129-204
81 6 16	-2409598.849	.01	-4478349.644	.02	3838603.708	.02	15103-172
81 11 18	-2409598.861	.01	-4478350.681	.01	3838603.851	.01	15155-222
81 11 19	-2409598.875	.01	-4478350.602	.02	3838603.786	.01	15155-224
82 6 16	-2409598.812	.03	-4478349.481	.05	3838603.453	.05	15149-200
82 6 18	-2409598.878	.01	-4478349.425	.02	3838603.497	.02	15156-115
82 6 19	-2409598.841	.01	-4478349.515	.04	3838603.706	.04	15129-211
82 6 20	-2409598.842	.02	-4478349.312	.03	3838603.537	.03	15129-134
82 6 21	-2409598.847	.02	-4478349.379	.04	3838603.581	.04	15107-194
82 10 18	-2409598.847	.01	-4478350.238	.03	3838603.662	.03	15156-121
82 10 25	-2409598.843	.02	-4478350.508	.04	3838603.784	.04	15091-145
82 12 15	-2409598.833	.01	-4478350.312	.02	3838603.498	.02	15129-205
82 12 16	-2409598.819	.01	-4478350.237	.02	3838603.468	.02	15156-125
83 6 6	-2409598.814	.01	-4478350.814	.03	3838603.433	.02	15130-183
83 6 27	-2409598.927	.02	-4478350.546	.04	3838603.854	.03	15103-190
83 6 29	-2409598.861	.01	-4478350.414	.02	3838603.766	.02	15100-192

83	8	22	-2409598.898	.01	-4478350.484	.03	3838603.811	.02	15149-192
83	8	22	-2409598.871	.01	-4478350.431	.02	3838603.788	.02	15149-195
83	8	23	-2409598.861	.01	-4478350.429	.01	3838603.788	.01	15109-151
83	8	25	-2409598.908	.02	-4478350.515	.03	3838603.847	.02	15119-175
83	8	27	-2409598.843	.02	-4478350.380	.05	3838603.733	.04	15107-154
83	8	31	-2409598.879	.02	-4478350.455	.05	3838603.811	.04	15140-185
83	10	31	-2409598.878	.01	-4478350.428	.02	3838603.777	.02	15140-190
83	11	5	-2409598.880	.01	-4478350.473	.02	3838603.809	.02	15140-191
83	11	12	-2409598.911	.02	-4478350.499	.04	3838603.831	.03	15140-195
84	2	20	-2409598.955	.02	-4478350.612	.03	3838603.905	.03	15149-202
84	2	23	-2409598.922	.04	-4478350.557	.08	3838603.937	.07	15149-202
84	2	26	-2409598.903	.01	-4478350.480	.02	3838603.902	.02	15149-203
84	4	9	-2409598.912	.01	-4478350.482	.02	3838603.810	.02	15150-160
84	4	12	-2409598.910	.01	-4478350.472	.02	3838603.804	.02	15156-142
84	4	19	-2409598.858	.01	-4478350.546	.02	3838603.653	.02	15112-204
84	10	22	-2409598.838	.01	-4478350.387	.01	3838603.743	.01	15155-163
84	10	25	-2409598.864	.02	-4478350.439	.04	3838603.797	.03	15149-222
84	10	26	-2409598.873	.01	-4478350.066	.03	3838603.776	.02	15084-172
84	10	28	-2409598.842	.02	-4478350.402	.05	3838603.774	.04	15149-222

Table 6.2

GEOCENTRIC RECTANGULAR POSITIONS OF NRAO 140

DATE	X-COMPONENT VALUE (m)	SIGMA	Y-COMPONENT VALUE (m)	SIGMA	Z-COMPONENT VALUE (m)	SIGMA	RUN CODE
76 10 9	882881.690	.02	-4924482.994	.05	3944131.305	.04	15119-200
76 10 11	882881.639	.01	-4924483.046	.04	3944131.201	.03	15117-234
76 12 13	882881.819	.01	-4924483.248	.04	3944131.169	.03	15118-
76 12 15	882881.769	.01	-4924483.154	.05	3944131.135	.04	15118- 2
77 3 27	882881.715	.01	-4924482.993	.03	3944130.928	.02	15119-193
77 6 26	882881.746	.03	-4924483.013	.10	3944130.975	.07	15119-202
77 9 24	882881.670	.01	-4924482.982	.04	3944131.050	.03	15123-141
78 5 17	882881.811	.01	-4924483.050	.02	3944130.845	.02	15084-191
79 8 3	882881.808	.01	-4924483.051	.03	3944130.952	.02	15118- 5
79 11 25	882881.932	.01	-4924483.205	.03	3944131.020	.03	15123-133
80 4 11	882881.817	.00	-4924483.063	.01	3944130.981	.01	15117-223
81 11 18	882881.850	.00	-4924483.155	.01	3944131.052	.01	15155-222
81 11 19	882881.829	.01	-4924483.132	.02	3944131.034	.01	15155-224
82 12 15	882881.842	.01	-4924483.137	.02	3944131.040	.02	15129-205
82 12 16	882881.826	.00	-4924483.115	.02	3944131.038	.01	15156-125

Table 6.3

GEOCENTRIC RECTANGULAR POSITIONS OF ONSALA60

DATE	X-COMPONENT VALUE (m)	SIGMA	Y-COMPONENT VALUE (m)	SIGMA	Z-COMPONENT VALUE (m)	SIGMA	RUN CODE
77 9 24	3370609.165	.08	711916.489	.11	5349831.699	.22	15123-141
78 2 24	3370609.556	.09	711915.854	.07	5349831.322	.35	15120-180
78 5 17	3370608.270	.03	711916.309	.03	5349831.560	.05	15084-191
80 7 26	3370608.663	.01	711916.268	.02	5349830.655	.03	15144-173
80 7 27	3370608.705	.02	711916.252	.03	5349830.668	.04	15155-220
80 9 26	3370608.886	.02	711916.170	.02	5349830.527	.03	15129-214
80 9 27	3370608.879	.03	711916.149	.03	5349830.546	.04	15129-213
80 9 28	3370609.009	.02	711916.154	.01	5349830.698	.03	15129-220
80 9 29	3370608.943	.04	711916.172	.04	5349830.636	.07	15107-144
80 9 30	3370608.838	.02	711916.252	.02	5349830.591	.05	15107-181
80 10 1	3370608.569	.06	711916.227	.10	5349830.571	.17	15109- 10
80 10 2	3370608.703	.02	711916.222	.02	5349830.703	.03	15107-185
80 10 16	3370608.008	.01	711916.519	.01	5349830.744	.02	15129-222
80 10 17	3370607.986	.02	711916.497	.02	5349830.863	.03	15129-223
80 10 18	3370607.937	.02	711916.466	.02	5349830.816	.04	15129-230
80 10 19	3370607.787	.01	711916.562	.01	5349830.694	.02	15129-231
80 10 20	3370607.820	.01	711916.534	.01	5349830.813	.02	15130-
80 10 21	3370607.833	.02	711916.559	.02	5349830.849	.04	15130- 1
80 10 22	3370607.885	.01	711916.484	.01	5349830.869	.02	15129-204
80 12 1	3370607.199	.02	711916.647	.02	5349831.493	.04	15084-182
80 12 19	3370607.204	.01	711916.619	.01	5349831.254	.02	15130-164
81 1 22	3370607.911	.02	711916.401	.01	5349831.319	.03	15098-170
81 2 27	3370606.469	.03	711916.906	.02	5349831.029	.04	15085-230
81 10 21	3370607.933	.04	711916.477	.03	5349830.934	.06	15098-175
81 11 18	3370608.152	.13	711916.395	.03	5349831.055	.12	15155-222
81 11 19	3370607.779	.01	711916.559	.02	5349831.085	.03	15155-224
82 3 17	3370607.265	.02	711916.657	.02	5349831.204	.04	15107-191
82 4 19	3370607.527	.04	711916.564	.03	5349831.236	.06	15089-192
82 6 16	3370609.042	.03	711916.054	.03	5349831.241	.05	15149-200
82 6 18	3370609.208	.02	711916.013	.02	5349831.207	.03	15156-115
82 6 19	3370609.289	.02	711915.982	.02	5349831.190	.04	15129-211
82 6 20	3370609.323	.02	711915.979	.01	5349831.193	.03	15129-134
82 6 21	3370609.328	.03	711915.982	.03	5349831.132	.05	15107-194
82 9 13	3370608.982	.05	711916.127	.04	5349830.642	.09	15098-162
82 9 20	3370609.145	.08	711916.219	.05	5349830.527	.13	15090- 11
82 10 18	3370608.207	.02	711916.436	.02	5349830.805	.04	15156-121
82 11 15	3370607.851	.06	711916.447	.03	5349831.447	.09	15091-162
82 12 15	3370608.295	.05	711916.379	.03	5349831.217	.06	15129-205
82 12 16	3370608.241	.02	711916.320	.02	5349831.117	.04	15156-125
83 2 7	3370607.956	.03	711916.401	.02	5349831.104	.05	15078-155
83 2 28	3370607.754	.02	711916.534	.02	5349830.859	.04	15095-163
83 3 14	3370607.611	.03	711916.598	.02	5349830.884	.05	15095-173
83 4 18	3370608.245	.03	711916.372	.02	5349831.077	.05	15103-173
83 5 5	3370608.000	.02	711916.432	.02	5349831.329	.03	15156-205
83 5 16	3370607.332	.06	711916.707	.03	5349831.023	.10	15120-195
83 6 13	3370607.286	.05	711916.625	.03	5349831.530	.07	15096-190
83 8 29	3370607.582	.07	711916.662	.07	5349830.117	.13	15100-211
83 8 30	3370608.061	.02	711916.505	.02	5349830.892	.04	15103-174

83	9	22	3370608.368	.05	711916.346	.04	5349830.864	.10	15103-180
83	9	23	3370608.417	.03	711916.359	.03	5349831.035	.04	15078-184
83	10	27	3370607.616	.04	711916.589	.03	5349830.859	.07	15107-161
83	10	28	3370607.595	.02	711916.633	.02	5349830.847	.04	15107-162
83	11	16	3370607.924	.02	711916.551	.02	5349830.992	.04	15095-195
83	11	17	3370607.931	.02	711916.502	.02	5349830.950	.03	15107-164
83	12	21	3370607.493	.04	711916.628	.02	5349830.917	.06	15156-132
83	12	22	3370607.350	.02	711916.768	.02	5349830.715	.04	15107-204
84	1	24	3370607.694	.02	711916.651	.02	5349830.861	.04	15156-135
84	2	23	3370608.116	.03	711916.456	.02	5349830.966	.04	15116-182
84	2	24	3370608.116	.02	711916.430	.02	5349831.048	.03	15078-185
84	3	14	3370607.926	.02	711916.476	.01	5349830.895	.03	15078-203
84	4	18	3370607.801	.02	711916.591	.02	5349830.845	.04	15156-144
84	4	19	3370607.768	.01	711916.621	.01	5349830.897	.02	15112-204
84	5	18	3370607.288	.03	711916.786	.02	5349830.862	.04	15112-195
84	5	19	3370607.347	.02	711916.722	.02	5349830.950	.03	15080-205
84	6	12	3370607.525	.03	711916.679	.02	5349831.174	.06	15156-145
84	10	25	3370608.583	.03	711916.271	.02	5349830.929	.04	15130-171
84	11	14	3370607.880	.03	711916.576	.02	5349830.929	.04	15079-163
84	11	15	3370607.790	.02	711916.590	.02	5349830.908	.03	15084-173
84	12	19	3370607.939	.05	711916.616	.03	5349830.749	.07	15155-164

Table 6.4

GEOCENTRIC RECTANGULAR POSITIONS OF EFLSBERG

DATE	X-COMPONENT		Y-COMPONENT		Z-COMPONENT		RUN CODE
	VALUE (m)	SIGMA	VALUE (m)	SIGMA	VALUE (m)	SIGMA	
79 11 25	4033948.537	.03	486989.824	.04	4900431.100	.05	15123-133
80 7 26	4033950.099	.02	486989.151	.02	4900430.737	.03	15144-173
80 7 27	4033949.974	.02	486989.157	.03	4900430.522	.04	15155-220
80 9 26	4033950.190	.02	486989.004	.02	4900430.477	.03	15129-214
80 9 27	4033950.251	.02	486988.992	.03	4900430.550	.03	15129-213
80 9 28	4033950.299	.01	486988.988	.01	4900430.619	.02	15129-220
83 5 5	4033949.356	.02	486989.445	.02	4900431.239	.03	15156-205

Table 6.5

GEOCENTRIC RECTANGULAR POSITIONS OF HRAS 085

DATE	X-COMPONENT		Y-COMPONENT		Z-COMPONENT		RUN CODE
	VALUE (m)	SIGMA	VALUE (m)	SIGMA	VALUE (m)	SIGMA	
80 4 11	-1324209.104	.01	-5332023.771	.04	3232118.680	.02	15117-223
80 7 26	-1324209.304	.01	-5332024.076	.05	3232119.201	.03	15144-173
80 7 27	-1324209.110	.02	-5332022.837	.06	3232118.403	.04	15155-220
80 9 26	-1324209.343	.02	-5332023.604	.08	3232119.117	.05	15129-214
80 9 27	-1324209.396	.02	-5332023.628	.06	3232119.134	.04	15129-213
80 9 28	-1324209.345	.01	-5332023.568	.05	3232119.076	.03	15129-220
80 9 29	-1324209.307	.02	-5332023.343	.09	3232118.866	.06	15107-144
80 9 30	-1324209.288	.02	-5332023.574	.07	3232119.042	.05	15107-181
80 10 1	-1324209.301	.02	-5332023.769	.08	3232119.164	.05	15109- 10
80 10 2	-1324209.261	.01	-5332023.680	.05	3232119.067	.03	15107-185
80 10 16	-1324209.127	.01	-5332023.936	.04	3232118.886	.02	15129-222
80 10 17	-1324209.141	.01	-5332024.211	.04	3232119.031	.03	15129-223
80 10 18	-1324209.113	.01	-5332024.240	.05	3232119.052	.03	15129-230
80 10 19	-1324209.101	.01	-5332024.089	.04	3232118.925	.02	15129-231
80 10 20	-1324209.080	.01	-5332024.163	.04	3232118.979	.02	15130-
80 10 21	-1324209.097	.01	-5332024.176	.04	3232119.008	.03	15130- 1
80 10 22	-1324209.098	.01	-5332024.125	.03	3232118.951	.02	15129-204
80 11 3	-1324209.036	.02	-5332024.124	.07	3232118.823	.04	15078-210
80 12 1	-1324208.871	.02	-5332024.509	.07	3232118.633	.04	15084-182
80 12 19	-1324208.866	.01	-5332024.367	.05	3232118.606	.03	15130-164
81 1 7	-1324208.845	.01	-5332024.509	.04	3232118.629	.02	15098-165
81 1 22	-1324208.978	.02	-5332024.000	.07	3232118.653	.04	15098-170
81 2 12	-1324208.819	.01	-5332024.462	.02	3232118.594	.02	15119-162
81 2 27	-1324208.798	.03	-5332024.769	.10	3232118.756	.06	15085-230
81 3 16	-1324209.133	.01	-5332023.835	.03	3232118.839	.03	15085-231
81 5 13	-1324208.988	.02	-5332024.060	.06	3232118.589	.04	15140-150
81 6 16	-1324209.262	.01	-5332023.375	.04	3232118.851	.03	15103-172
81 6 24	-1324209.285	.02	-5332023.525	.07	3232118.953	.06	15085-231
81 7 1	-1324209.270	.02	-5332023.599	.06	3232118.823	.04	15078-193
81 7 8	-1324209.205	.02	-5332023.740	.05	3232118.811	.04	15085-232
81 7 15	-1324209.125	.03	-5332024.212	.12	3232118.925	.08	15085-233
81 7 22	-1324209.016	.01	-5332024.324	.03	3232118.805	.02	15085-233
81 7 29	-1324209.072	.01	-5332024.075	.04	3232118.716	.03	15085-234
81 8 5	-1324209.176	.02	-5332023.791	.06	3232118.782	.05	15085-235
81 8 26	-1324209.179	.01	-5332023.871	.05	3232118.907	.04	15086-130
81 9 2	-1324209.085	.02	-5332024.423	.06	3232119.026	.05	15086-131
81 9 9	-1324208.988	.01	-5332024.629	.05	3232118.980	.04	15086-133
81 9 16	-1324208.951	.01	-5332024.602	.05	3232118.874	.04	15086-135
81 9 23	-1324209.011	.02	-5332024.352	.05	3232118.882	.04	15078-204
81 9 30	-1324209.146	.01	-5332024.096	.04	3232118.988	.03	15078-205
81 10 15	-1324209.203	.02	-5332024.260	.07	3232119.050	.05	15086-140
81 10 21	-1324209.134	.02	-5332024.105	.07	3232118.961	.05	15098-175
81 10 28	-1324209.095	.01	-5332023.967	.04	3232118.841	.03	15086-141
81 11 4	-1324209.106	.02	-5332024.025	.06	3232118.847	.04	15086-142
81 11 10	-1324209.078	.01	-5332024.229	.04	3232118.990	.02	15086-144
81 11 18	-1324209.091	.00	-5332024.182	.01	3232118.965	.01	15155-222
81 11 19	-1324209.079	.01	-5332024.009	.03	3232118.840	.02	15155-224
81 11 24	-1324209.041	.01	-5332024.235	.05	3232118.898	.04	15088-194

81	12	2	-1324209.034	.02	-5332024.285	.05	3232118.882	.04	15088-200
81	12	16	-1324209.078	.01	-5332024.079	.04	3232118.862	.03	15086-145
81	12	22	-1324209.133	.01	-5332023.944	.04	3232118.834	.03	15088-201
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82	1	13	-1324208.908	.01	-5332024.391	.04	3232118.709	.03	15088-205
82	1	20	-1324208.941	.01	-5332024.448	.03	3232118.747	.03	15088-210
82	1	27	-1324209.016	.01	-5332024.287	.04	3232118.816	.03	15088-211
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82	2	10	-1324208.873	.01	-5332024.637	.03	3232118.734	.02	15088-213
82	2	17	-1324208.826	.01	-5332024.840	.04	3232118.819	.03	15088-214
82	2	24	-1324208.779	.01	-5332024.874	.06	3232118.755	.05	15088-215
82	3	3	-1324208.878	.01	-5332024.473	.05	3232118.635	.04	15088-215
82	3	10	-1324208.906	.02	-5332024.258	.06	3232118.527	.04	15088-220
82	3	17	-1324208.906	.02	-5332024.389	.07	3232118.629	.04	15107-191
82	3	24	-1324208.892	.01	-5332024.553	.05	3232118.679	.04	15088-221
82	3	29	-1324208.884	.01	-5332024.371	.06	3232118.661	.05	15088-222
82	4	7	-1324208.996	.02	-5332024.289	.06	3232118.741	.04	15088-222
82	4	13	-1324209.043	.02	-5332024.294	.08	3232118.883	.06	15088-223
82	4	19	-1324209.009	.03	-5332024.271	.11	3232118.730	.07	15089-192
82	4	26	-1324208.983	.02	-5332024.328	.08	3232118.838	.07	15089-193
82	5	3	-1324209.068	.01	-5332023.964	.04	3232118.706	.03	15089-194
82	5	10	-1324209.153	.01	-5332023.693	.04	3232118.720	.03	15089-195
82	5	17	-1324209.135	.01	-5332023.863	.04	3232118.824	.03	15089-200
82	6	2	-1324209.223	.01	-5332023.599	.05	3232118.870	.04	15089-202
82	6	7	-1324209.253	.01	-5332023.358	.05	3232118.676	.04	15089-203
82	6	20	-1324209.314	.01	-5332023.191	.03	3232118.754	.02	15129-134
82	6	21	-1324209.327	.01	-5332023.261	.04	3232118.791	.03	15107-194
82	6	28	-1324209.297	.01	-5332023.311	.05	3232118.823	.04	15089-233
82	7	6	-1324209.358	.02	-5332023.438	.06	3232118.937	.04	15100-194
82	7	12	-1324209.290	.02	-5332023.487	.07	3232118.925	.06	15089-234
82	7	19	-1324209.313	.02	-5332023.319	.06	3232118.855	.05	15090- 2
82	7	26	-1324209.337	.02	-5332023.307	.06	3232118.854	.04	15090- 3
82	8	4	-1324209.257	.02	-5332023.613	.06	3232118.984	.05	15089-204
82	8	9	-1324209.157	.02	-5332023.621	.07	3232118.805	.05	15089-205
82	8	16	-1324209.150	.04	-5332023.818	.17	3232119.002	.12	15089-210
82	8	23	-1324209.192	.02	-5332023.714	.10	3232118.785	.07	15089-212
82	8	30	-1324209.184	.02	-5332023.888	.06	3232118.917	.04	15089-213
82	9	7	-1324209.212	.02	-5332023.659	.07	3232118.813	.05	15090- 4
82	9	13	-1324209.212	.04	-5332023.855	.14	3232118.979	.09	15098-162
82	9	20	-1324209.243	.08	-5332023.549	.27	3232118.818	.18	15090- 11
82	9	27	-1324209.249	.01	-5332023.719	.05	3232118.908	.04	15091-124
82	10	4	-1324209.174	.02	-5332023.651	.07	3232118.808	.05	15091-125
82	10	13	-1324209.168	.01	-5332023.884	.05	3232118.937	.04	15091-131
82	10	16	-1324209.143	.02	-5332023.973	.04	3232118.926	.03	15133-131
82	10	17	-1324209.173	.01	-5332024.098	.03	3232118.997	.02	15133-130
82	10	18	-1324209.130	.01	-5332023.848	.03	3232118.836	.02	15156-121
82	10	23	-1324209.078	.01	-5332023.955	.02	3232118.922	.02	15133-133
82	10	25	-1324209.095	.02	-5332024.096	.07	3232118.953	.04	15091-145
82	11	1	-1324209.059	.01	-5332024.214	.05	3232118.907	.03	15091-155
82	11	8	-1324209.018	.01	-5332024.182	.05	3232118.840	.04	15091-161
82	11	15	-1324209.011	.02	-5332024.250	.07	3232118.820	.05	15091-162
82	11	22	-1324209.032	.01	-5332024.104	.04	3232118.756	.03	15091-172
82	11	29	-1324209.024	.01	-5332024.105	.04	3232118.706	.03	15091-173
82	12	6	-1324209.016	.01	-5332024.110	.04	3232118.812	.03	15091-182

82	12	15	-1324209.066	.01	-5332023.918	.02	3232118.727	.02	15129-205
82	12	16	-1324209.071	.01	-5332023.833	.03	3232118.701	.02	15156-125
82	12	20	-1324209.068	.01	-5332023.913	.04	3232118.755	.03	15089-215
82	12	27	-1324209.056	.01	-5332023.958	.04	3232118.673	.03	15150-155
83	1	3	-1324208.951	.01	-5332024.328	.03	3232118.787	.02	15091-185
83	1	10	-1324209.002	.01	-5332024.205	.04	3232118.835	.03	15093-221
83	1	17	-1324209.143	.01	-5332023.814	.03	3232118.798	.02	15093-222
83	1	24	-1324209.274	.01	-5332023.296	.03	3232118.767	.02	15096-184
83	1	31	-1324209.158	.01	-5332023.684	.03	3232118.780	.03	15093-225
83	2	7	-1324209.075	.01	-5332024.082	.03	3232118.809	.02	15078-155
83	2	14	-1324209.055	.01	-5332024.028	.03	3232118.739	.02	15093-231
83	2	24	-1324209.141	.13	-5332023.915	.23	3232119.017	.20	15119-180
83	2	28	-1324209.085	.01	-5332024.130	.04	3232118.867	.03	15095-163
83	3	7	-1324209.021	.01	-5332024.308	.02	3232118.932	.02	15095-165
83	3	14	-1324209.056	.02	-5332024.150	.06	3232118.825	.04	15095-173
83	3	21	-1324209.059	.02	-5332024.167	.08	3232118.898	.07	15095-174
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83	4	4	-1324209.064	.01	-5332024.021	.04	3232118.800	.03	15095-211
83	4	11	-1324209.045	.01	-5332023.959	.04	3232118.743	.03	15095-212
83	4	25	-1324209.142	.01	-5332023.743	.03	3232118.793	.02	15100-183
83	5	2	-1324209.090	.01	-5332023.926	.04	3232118.789	.03	15100-184
83	5	5	-1324209.034	.01	-5332023.980	.02	3232118.801	.02	15156-205
83	5	9	-1324209.029	.01	-5332024.081	.03	3232118.753	.03	15078-154
83	5	16	-1324209.021	.02	-5332024.267	.07	3232118.803	.04	15120-195
83	5	23	-1324208.915	.01	-5332024.181	.05	3232118.651	.04	15096-185
83	5	31	-1324208.970	.02	-5332024.220	.07	3232118.691	.05	15095-185
83	6	6	-1324208.956	.01	-5332024.204	.05	3232118.596	.03	15130-183
83	6	7	-1324208.932	.01	-5332024.448	.03	3232118.799	.02	15130-190
83	6	9	-1324208.939	.02	-5332024.274	.08	3232118.675	.05	15130-192
83	6	13	-1324209.000	.02	-5332024.463	.07	3232118.850	.04	15096-190
83	6	20	-1324209.033	.01	-5332024.100	.04	3232118.714	.03	15100-201
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83	6	28	-1324209.114	.01	-5332023.930	.05	3232118.788	.04	15107-201
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83	7	5	-1324209.082	.02	-5332023.824	.05	3232118.657	.04	15105-183
83	7	11	-1324209.005	.01	-5332024.077	.04	3232118.765	.03	15100-204
83	7	25	-1324209.118	.01	-5332024.114	.04	3232118.942	.03	15080-202
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83	8	8	-1324209.125	.01	-5332023.928	.04	3232118.858	.03	15107-152
83	8	15	-1324209.108	.01	-5332023.987	.05	3232118.853	.04	15085-214
83	8	22	-1324209.105	.01	-5332024.115	.05	3232118.970	.04	15158-170
83	8	23	-1324209.098	.01	-5332023.972	.02	3232118.908	.01	15109-151
83	8	29	-1324209.120	.02	-5332023.937	.06	3232118.937	.05	15100-211
83	9	2	-1324209.222	.01	-5332023.761	.04	3232118.937	.03	15086-154
83	9	7	-1324209.253	.01	-5332023.761	.04	3232119.005	.03	15086-155
83	9	12	-1324209.240	.02	-5332023.708	.07	3232119.046	.05	15086-160
83	9	17	-1324209.268	.01	-5332023.689	.04	3232119.043	.03	15086-161
83	9	22	-1324209.230	.01	-5332023.805	.05	3232119.044	.04	15103-180
83	9	27	-1324209.201	.01	-5332023.817	.04	3232118.939	.03	15107-155
83	10	2	-1324209.179	.01	-5332023.972	.04	3232119.017	.03	15103-181
83	10	7	-1324209.188	.01	-5332023.797	.04	3232118.919	.03	15103-183
83	10	12	-1324209.175	.01	-5332023.905	.04	3232118.955	.03	15106-181
83	10	17	-1324209.172	.02	-5332023.951	.05	3232118.929	.04	15078-170
83	10	22	-1324209.110	.01	-5332024.027	.04	3232118.881	.03	15105-190
83	10	27	-1324209.075	.01	-5332024.211	.03	3232118.991	.03	15107-161

83	11	1	-1324209.077	.01	-5332023.983	.04	3232118.843	.03	15105-192
83	11	5	-1324209.132	.02	-5332023.956	.03	3232118.860	.03	15140-191
83	11	6	-1324209.144	.01	-5332023.933	.03	3232118.938	.02	15105-194
83	11	8	-1324209.164	.02	-5332024.087	.04	3232118.957	.03	15140-192
83	11	11	-1324209.136	.01	-5332024.015	.04	3232118.988	.03	15106-182
83	11	16	-1324209.112	.01	-5332023.927	.03	3232118.841	.02	15095-195
83	11	21	-1324209.133	.01	-5332024.014	.03	3232118.945	.02	15106-184
83	11	26	-1324209.095	.01	-5332024.096	.03	3232118.935	.02	15106-185
83	12	1	-1324209.096	.01	-5332024.105	.03	3232118.974	.02	15106-193
83	12	6	-1324209.093	.01	-5332024.040	.04	3232118.955	.03	15106-194
83	12	11	-1324209.104	.01	-5332024.087	.03	3232118.976	.02	15106-195
83	12	16	-1324209.070	.01	-5332024.197	.02	3232118.949	.02	15106-200
83	12	21	-1324209.054	.01	-5332024.255	.04	3232118.934	.03	15156-132
83	12	26	-1324209.031	.01	-5332024.338	.03	3232118.988	.02	15103-184
83	12	31	-1324209.073	.01	-5332024.145	.03	3232118.949	.02	15109- 13
84	1	4	-1324209.153	.01	-5332023.914	.02	3232118.977	.02	15109- 15
84	1	9	-1324209.175	.01	-5332023.889	.03	3232119.004	.02	15095-201
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84	1	29	-1324209.053	.01	-5332024.298	.03	3232118.995	.02	15109-142
84	2	3	-1324209.106	.01	-5332024.095	.03	3232118.964	.02	15109-145
84	2	8	-1324209.112	.01	-5332024.050	.05	3232118.918	.03	15109-161
84	2	13	-1324209.117	.01	-5332024.035	.03	3232118.945	.02	15109-164
84	2	18	-1324209.120	.01	-5332024.001	.03	3232118.876	.02	15109-172
84	2	23	-1324209.168	.02	-5332023.795	.05	3232118.766	.04	15116-182
84	2	28	-1324209.086	.02	-5332024.027	.05	3232118.875	.04	15109-190
84	3	4	-1324209.144	.01	-5332024.086	.05	3232118.996	.03	15109-193
84	3	9	-1324209.151	.02	-5332023.826	.05	3232118.856	.04	15109-195
84	3	14	-1324209.092	.01	-5332024.079	.04	3232118.878	.02	15078-203
84	3	19	-1324209.065	.01	-5332023.965	.04	3232118.788	.03	15109-180
84	3	25	-1324209.051	.01	-5332024.123	.03	3232118.831	.02	15109-201
84	4	3	-1324209.059	.02	-5332024.366	.07	3232118.944	.04	15085-225
84	4	8	-1324208.994	.02	-5332024.261	.05	3232118.823	.03	15109-204
84	4	12	-1324209.031	.01	-5332023.838	.03	3232118.926	.02	15156-142
84	4	13	-1324209.047	.01	-5332024.351	.05	3232118.936	.03	15112-175
84	4	17	-1324209.083	.01	-5332023.965	.03	3232118.943	.02	15149-205
84	4	18	-1324209.077	.02	-5332024.174	.06	3232118.903	.04	15156-144
84	4	22	-1324209.095	.01	-5332023.977	.03	3232118.959	.02	15150-154
84	4	23	-1324209.093	.02	-5332024.148	.06	3232118.892	.05	15112-184
84	4	25	-1324209.118	.01	-5332024.106	.04	3232119.033	.02	15149-210
84	4	28	-1324209.048	.02	-5332024.137	.06	3232118.852	.04	15112-191
84	5	3	-1324208.947	.04	-5332024.117	.15	3232118.789	.09	15084-163
84	5	8	-1324208.984	.02	-5332024.320	.06	3232118.814	.05	15112-193
84	5	13	-1324208.976	.02	-5332024.201	.08	3232118.853	.06	15112-194
84	5	18	-1324209.000	.01	-5332024.364	.05	3232118.850	.03	15112-195
84	5	23	-1324209.018	.02	-5332024.266	.07	3232118.777	.05	15112-201
84	5	28	-1324209.012	.01	-5332024.280	.05	3232118.816	.04	15112-205
84	6	2	-1324209.008	.02	-5332024.277	.06	3232118.856	.04	15112-210
84	6	7	-1324209.030	.03	-5332024.145	.10	3232118.727	.07	15112-210
84	6	12	-1324209.020	.02	-5332024.337	.06	3232118.813	.04	15156-145
84	6	17	-1324209.015	.01	-5332024.284	.03	3232118.859	.02	15113-213
84	6	22	-1324209.004	.02	-5332024.359	.06	3232118.927	.04	15113-221
84	6	27	-1324209.005	.02	-5332024.100	.05	3232118.866	.04	15113-222
84	7	2	-1324209.026	.02	-5332024.365	.05	3232118.928	.04	15113-232
84	7	7	-1324208.982	.01	-5332024.370	.05	3232118.859	.04	15113-233

84	7	12	-1324209.024	.01	-5332024.329	.04	3232118.831	.03	15113-234
84	7	17	-1324209.000	.01	-5332024.165	.04	3232118.762	.03	15113-235
84	7	22	-1324209.015	.02	-5332024.269	.06	3232118.919	.05	15114-
84	7	27	-1324209.024	.02	-5332024.159	.08	3232118.843	.06	15113-230
84	8	1	-1324209.068	.01	-5332024.152	.05	3232118.972	.04	15114- 1
84	8	6	-1324209.066	.01	-5332024.128	.04	3232118.785	.03	15114- 3
84	8	11	-1324209.097	.01	-5332024.126	.04	3232118.826	.03	15114- 5
84	8	16	-1324209.117	.02	-5332024.084	.05	3232118.888	.04	15116-141
84	8	21	-1324209.113	.01	-5332023.930	.04	3232118.801	.03	15116-143
84	8	26	-1324209.029	.01	-5332024.143	.05	3232118.828	.04	15116-150
84	8	28	-1324209.050	.01	-5332024.175	.02	3232118.927	.02	15081-181
84	8	31	-1324209.059	.01	-5332024.180	.05	3232118.938	.03	15116-152
84	9	5	-1324209.061	.01	-5332024.075	.04	3232118.902	.03	15116-153
84	9	10	-1324209.059	.01	-5332024.092	.04	3232118.884	.03	15116-155
84	9	15	-1324209.118	.02	-5332023.938	.05	3232118.887	.04	15116-172
84	9	20	-1324209.096	.02	-5332023.879	.05	3232118.875	.04	15116-174
84	9	25	-1324209.122	.01	-5332023.843	.04	3232118.823	.03	15081-212
84	9	30	-1324209.111	.01	-5332023.830	.04	3232118.809	.03	15084-170
84	10	5	-1324209.164	.01	-5332023.876	.04	3232118.894	.03	15116-181
84	10	10	-1324209.206	.02	-5332023.821	.05	3232118.941	.04	15116-184
84	10	15	-1324209.230	.01	-5332023.621	.04	3232118.950	.03	15084-171
84	10	20	-1324209.194	.01	-5332023.820	.04	3232118.942	.03	15079-152
84	10	25	-1324209.219	.01	-5332023.707	.04	3232118.895	.03	15130-171
84	10	30	-1324209.175	.01	-5332023.907	.04	3232118.982	.03	15079-160
84	11	4	-1324209.167	.01	-5332023.861	.04	3232118.839	.03	15079-161
84	11	9	-1324209.129	.01	-5332023.877	.03	3232118.867	.03	15079-162
84	11	14	-1324209.087	.01	-5332024.041	.04	3232118.866	.03	15079-163
84	11	19	-1324209.065	.01	-5332024.005	.03	3232118.852	.02	15079-165
84	11	24	-1324209.110	.01	-5332023.957	.03	3232118.897	.02	15079-170
84	11	29	-1324209.117	.01	-5332023.990	.03	3232118.878	.02	15136-132
84	12	4	-1324209.037	.01	-5332024.042	.03	3232118.814	.02	15180-190
84	12	9	-1324209.062	.01	-5332023.926	.03	3232118.773	.03	15180-191
84	12	14	-1324209.079	.01	-5332024.152	.04	3232118.946	.03	15180-193
84	12	19	-1324209.119	.01	-5332023.943	.05	3232118.904	.03	15155-164
84	12	23	-1324209.108	.01	-5332023.949	.02	3232118.928	.02	15116-193
84	12	29	-1324209.143	.01	-5332024.130	.04	3232119.054	.03	15116-195

Table 6.6

GEOCENTRIC RECTANGULAR POSITIONS OF CHLBOLTN

DATE	X-COMPONENT		Y-COMPONENT		Z-COMPONENT		RUN CODE
	VALUE (m)	SIGMA	VALUE (m)	SIGMA	VALUE (m)	SIGMA	
80 10 16	4008311.978	.02	-100651.785	.01	4943794.760	.03	15129-222
80 10 17	4008311.918	.03	-100651.816	.02	4943794.770	.04	15129-223
80 10 18	4008311.911	.04	-100651.798	.02	4943794.836	.05	15129-230
80 10 19	4008311.782	.02	-100651.723	.01	4943794.697	.02	15129-231
80 10 20	4008311.832	.02	-100651.746	.01	4943794.864	.03	15130-
80 10 21	4008311.609	.04	-100651.728	.02	4943794.561	.05	15130- 1
80 10 22	4008311.883	.02	-100651.802	.01	4943794.871	.02	15129-204

Table 6.7

GEOCENTRIC RECTANGULAR POSITIONS OF MARPOINT

DATE	X-COMPONENT		Y-COMPONENT		Z-COMPONENT		RUN CODE
	VALUE (m)	SIGMA	VALUE (m)	SIGMA	VALUE (m)	SIGMA	
82 6 18	1106631.126	.01	-4882907.834	.01	3938087.256	.01	15156-115
82 6 19	1106631.167	.01	-4882907.948	.02	3938087.365	.02	15129-211
82 10 18	1106631.231	.01	-4882907.987	.02	3938087.331	.02	15156-121

Table 6.8

GEOCENTRIC RECTANGULAR POSITIONS OF HATCREEK

DATE	X-COMPONENT VALUE (m)	SIGMA	Y-COMPONENT VALUE (m)	SIGMA	Z-COMPONENT VALUE (m)	SIGMA	RUN CODE
83 6 6	-2523968.056	.01	-4123507.663	.03	4147752.841	.02	15130-183
83 6 9	-2523968.056	.02	-4123507.767	.04	4147752.954	.04	15130-192
83 6 27	-2523968.100	.02	-4123507.348	.04	4147753.243	.03	15103-190
83 6 29	-2523968.041	.01	-4123507.225	.03	4147753.151	.02	15100-192
84 2 23	-2523968.042	.02	-4123507.243	.03	4147753.171	.03	15149-202
84 2 24	-2523968.018	.02	-4123507.237	.01	4147753.162	.02	15113-194
84 2 26	-2523968.054	.01	-4123507.297	.02	4147753.210	.02	15149-203
84 4 12	-2523968.124	.01	-4123507.268	.02	4147753.179	.02	15156-142
84 4 17	-2523968.016	.01	-4123507.141	.02	4147753.087	.01	15149-205
84 4 25	-2523968.070	.01	-4123507.231	.02	4147753.132	.01	15149-210

Table 6.9

GEOCENTRIC RECTANGULAR POSITIONS OF MOJAVE12

DATE	X-COMPONENT VALUE (m)	SIGMA	Y-COMPONENT VALUE (m)	SIGMA	Z-COMPONENT VALUE (m)	SIGMA	RUN CODE
83 6 28	-2356169.142	.02	-4646756.751	.05	3668471.063	.04	15107-201
83 7 25	-2356169.124	.01	-4646756.873	.03	3668471.166	.03	15080-202
83 8 8	-2356169.092	.01	-4646756.666	.03	3668471.096	.03	15107-152
83 9 27	-2356169.165	.01	-4646756.596	.03	3668471.261	.03	15107-155
83 10 12	-2356169.139	.01	-4646756.633	.03	3668471.224	.03	15106-181
83 10 27	-2356169.156	.01	-4646757.139	.03	3668471.315	.03	15107-161
83 11 21	-2356169.138	.01	-4646756.791	.02	3668471.215	.02	15106-184
83 12 1	-2356169.118	.01	-4646756.926	.02	3668471.259	.02	15106-193
84 1 4	-2356169.146	.01	-4646756.708	.02	3668471.273	.03	15109- 15
84 8 30	-2356169.148	.01	-4646756.907	.02	3668471.054	.02	15158-142
84 9 2	-2356169.122	.01	-4646756.956	.01	3668471.157	.01	15128-161

Table 6.10

GEOCENTRIC RECTANGULAR POSITIONS OF WETTZELL

DATE	X-COMPONENT		Y-COMPONENT		Z-COMPONENT		RUN CODE
	VALUE (m)	SIGMA	VALUE (m)	SIGMA	VALUE (m)	SIGMA	
83 11 16	4075541.747	.02	931734.301	.02	4801629.547	.04	15095-195
83 12 21	4075541.302	.04	931734.418	.02	4801629.503	.06	15156-132
84 1 9	4075542.133	.03	931734.097	.02	4801629.424	.04	15095-201
84 1 24	4075541.509	.02	931734.423	.02	4801629.413	.03	15156-135
84 1 29	4075541.393	.03	931734.468	.02	4801629.490	.04	15109-142
84 2 3	4075541.672	.05	931734.330	.03	4801629.406	.06	15109-145
84 2 8	4075541.804	.04	931734.246	.02	4801629.566	.05	15109-161
84 2 18	4075541.849	.03	931734.274	.02	4801629.588	.04	15109-172
84 2 23	4075541.991	.03	931734.189	.02	4801629.584	.04	15116-182
84 2 28	4075541.829	.03	931734.253	.03	4801629.573	.05	15109-190
84 3 4	4075542.019	.03	931734.154	.02	4801629.673	.05	15109-193
84 3 9	4075542.117	.04	931734.141	.03	4801629.465	.06	15109-195
84 3 14	4075541.776	.02	931734.220	.01	4801629.484	.03	15078-203
84 3 19	4075541.784	.02	931734.270	.02	4801629.472	.03	15109-180
84 3 25	4075541.588	.02	931734.378	.02	4801629.492	.03	15109-201
84 4 3	4075541.329	.03	931734.499	.02	4801629.472	.04	15085-225
84 4 8	4075541.291	.05	931734.481	.03	4801629.548	.07	15109-204
84 4 13	4075541.295	.03	931734.512	.02	4801629.413	.04	15112-175
84 4 18	4075541.641	.02	931734.339	.02	4801629.435	.03	15156-144
84 4 23	4075541.531	.04	931734.348	.03	4801629.439	.06	15112-184
84 4 28	4075541.390	.03	931734.442	.02	4801629.366	.05	15112-191
84 5 3	4075541.489	.04	931734.392	.03	4801629.457	.05	15084-163
84 5 8	4075541.194	.04	931734.572	.03	4801629.523	.05	15112-193
84 5 13	4075541.271	.04	931734.511	.03	4801629.457	.05	15112-194
84 5 18	4075541.103	.03	931734.619	.02	4801629.449	.04	15112-195
84 5 23	4075541.129	.03	931734.654	.03	4801629.387	.05	15112-201
84 5 28	4075541.183	.03	931734.592	.03	4801629.458	.04	15112-205
84 6 2	4075541.422	.03	931734.429	.02	4801629.661	.04	15112-210
84 6 7	4075541.313	.03	931734.513	.03	4801629.551	.05	15112-210
84 6 12	4075541.328	.03	931734.490	.02	4801629.709	.04	15156-145
84 6 17	4075541.346	.02	931734.508	.02	4801629.700	.03	15113-213
84 6 22	4075541.301	.03	931734.466	.02	4801629.615	.05	15113-221
84 6 27	4075541.610	.03	931734.327	.02	4801629.651	.04	15113-222
84 7 2	4075541.443	.03	931734.398	.02	4801629.634	.04	15113-232
84 7 7	4075541.274	.04	931734.529	.03	4801629.648	.05	15113-233
84 7 12	4075541.210	.03	931734.583	.03	4801629.598	.04	15113-234
84 7 17	4075541.388	.03	931734.511	.03	4801629.641	.05	15113-235
84 8 1	4075541.850	.03	931734.159	.03	4801629.655	.05	15114- 1
84 8 6	4075541.563	.04	931734.461	.03	4801629.562	.05	15114- 3
84 8 11	4075541.588	.03	931734.399	.02	4801629.512	.04	15114- 5
84 8 16	4075541.867	.03	931734.207	.03	4801629.618	.04	15116-141
84 8 21	4075542.086	.03	931734.205	.03	4801629.724	.05	15116-143
84 8 26	4075541.429	.03	931734.474	.03	4801629.505	.05	15116-150
84 8 30	4075541.518	.02	931734.528	.01	4801629.444	.03	15158-142
84 8 31	4075541.645	.03	931734.341	.03	4801629.614	.05	15116-152
84 9 2	4075541.587	.02	931734.430	.01	4801629.526	.02	15128-161
84 9 5	4075541.563	.03	931734.384	.03	4801629.473	.04	15116-153
84 9 10	4075541.666	.03	931734.389	.03	4801629.540	.04	15116-155

84	9	15	4075541.932	.04	931734.215	.03	4801629.534	.05	15116-172
84	9	20	4075542.017	.04	931734.146	.03	4801629.498	.06	15116-174
84	9	25	4075542.135	.03	931734.139	.03	4801629.632	.05	15081-212
84	9	30	4075542.148	.03	931734.111	.03	4801629.646	.05	15084-170
84	10	5	4075542.211	.03	931734.063	.02	4801629.548	.04	15116-181
84	10	10	4075542.397	.03	931733.967	.02	4801629.610	.04	15116-184
84	10	15	4075542.575	.03	931733.857	.02	4801629.531	.04	15084-171
84	10	20	4075542.271	.03	931734.055	.03	4801629.474	.04	15079-152
84	10	25	4075542.509	.03	931733.955	.02	4801629.562	.04	15130-171
84	10	30	4075542.203	.02	931734.115	.02	4801629.509	.04	15079-160
84	11	4	4075541.954	.03	931734.300	.02	4801629.407	.04	15079-161
84	11	9	4075542.031	.02	931734.182	.02	4801629.572	.03	15079-162
84	11	14	4075541.762	.03	931734.355	.02	4801629.554	.04	15079-163
84	11	19	4075541.770	.02	931734.241	.02	4801629.534	.03	15079-165
84	11	24	4075542.070	.03	931734.171	.02	4801629.522	.04	15079-170
84	11	29	4075541.843	.03	931734.286	.02	4801629.410	.04	15136-132
84	12	4	4075541.602	.02	931734.378	.02	4801629.546	.03	15180-190
84	12	9	4075541.742	.03	931734.292	.02	4801629.535	.04	15180-191
84	12	14	4075541.730	.03	931734.286	.02	4801629.544	.04	15180-193
84	12	19	4075541.798	.04	931734.350	.03	4801629.383	.05	15155-164
84	12	23	4075541.794	.03	931734.338	.02	4801629.529	.03	15116-193
84	12	29	4075541.774	.03	931734.310	.03	4801629.520	.05	15116-195

Table 6.11

GEOCENTRIC RECTANGULAR POSITIONS OF RICHMOND

DATE	X-COMPONENT VALUE (m)	SIGMA	Y-COMPONENT VALUE (m)	SIGMA	Z-COMPONENT VALUE (m)	SIGMA	RUN CODE
83 12 21	961259.744	.06	-5674091.016	.25	2740534.295	.15	15156-132
84 1 4	961259.805	.01	-5674090.951	.03	2740534.234	.02	15109- 15
84 1 14	961259.864	.01	-5674090.968	.04	2740534.243	.02	15095-203
84 1 24	961259.926	.01	-5674090.976	.05	2740534.208	.03	15156-135
84 2 3	961259.914	.02	-5674091.044	.07	2740534.260	.04	15109-145
84 2 13	961259.886	.01	-5674091.102	.07	2740534.332	.04	15109-164
84 2 18	961259.936	.01	-5674091.042	.04	2740534.227	.03	15109-172
84 3 4	961259.874	.01	-5674090.913	.03	2740534.236	.02	15109-193
84 3 19	961259.941	.01	-5674090.985	.03	2740534.226	.02	15109-180
84 3 25	961259.977	.01	-5674091.001	.04	2740534.245	.02	15109-201
84 4 3	961260.029	.01	-5674091.027	.05	2740534.197	.03	15085-225
84 4 8	961260.041	.01	-5674090.961	.05	2740534.161	.03	15109-204
84 4 13	961260.043	.01	-5674091.073	.04	2740534.304	.03	15112-175
84 4 18	961259.942	.01	-5674090.934	.03	2740534.196	.02	15156-144
84 4 23	961259.928	.02	-5674090.942	.06	2740534.208	.04	15112-184
84 4 28	961259.952	.01	-5674090.964	.04	2740534.229	.03	15112-191
84 5 28	961260.024	.01	-5674090.920	.05	2740534.157	.03	15112-205
84 6 2	961260.050	.01	-5674091.064	.03	2740534.253	.02	15112-210
84 6 7	961259.977	.02	-5674090.749	.09	2740534.076	.06	15112-210
84 6 12	961260.042	.01	-5674090.940	.05	2740534.167	.03	15156-145
84 6 17	961260.046	.01	-5674090.962	.03	2740534.224	.02	15113-213
84 6 22	961260.058	.01	-5674091.103	.05	2740534.282	.03	15113-221
84 6 27	961259.989	.01	-5674091.054	.04	2740534.269	.03	15113-222
84 7 2	961259.995	.01	-5674090.928	.04	2740534.204	.03	15113-232
84 7 7	961260.070	.01	-5674090.997	.04	2740534.201	.03	15113-233
84 7 12	961260.033	.01	-5674090.908	.04	2740534.144	.03	15113-234
84 7 17	961260.004	.01	-5674090.952	.04	2740534.154	.03	15113-235
84 7 22	961259.970	.02	-5674090.887	.05	2740534.155	.04	15114-
84 7 27	961260.002	.02	-5674090.907	.08	2740534.203	.05	15113-230
84 8 1	961259.939	.01	-5674090.893	.05	2740534.209	.03	15114- 1
84 8 6	961259.960	.01	-5674090.827	.04	2740534.085	.02	15114- 3
84 8 11	961259.960	.01	-5674090.915	.05	2740534.158	.03	15114- 5
84 8 16	961259.931	.01	-5674090.873	.04	2740534.181	.03	15116-141
84 8 21	961259.892	.01	-5674090.856	.04	2740534.162	.03	15116-143
84 8 26	961259.990	.01	-5674090.970	.04	2740534.186	.03	15116-150
84 8 31	961259.950	.01	-5674090.888	.04	2740534.176	.03	15116-152
84 9 5	961259.938	.01	-5674090.988	.04	2740534.258	.03	15116-153
84 9 10	961259.930	.01	-5674090.867	.03	2740534.170	.02	15116-155
84 9 15	961259.906	.03	-5674090.942	.07	2740534.225	.05	15116-172
84 9 25	961259.872	.01	-5674090.896	.04	2740534.190	.03	15081-212
84 9 30	961259.891	.01	-5674090.891	.04	2740534.193	.03	15084-170
84 10 5	961259.849	.01	-5674090.961	.04	2740534.248	.03	15116-181
84 10 10	961259.790	.01	-5674090.823	.04	2740534.158	.03	15116-184
84 10 15	961259.689	.01	-5674090.679	.03	2740534.130	.02	15084-171
84 10 20	961259.794	.01	-5674090.843	.04	2740534.213	.02	15079-152
84 10 25	961259.759	.01	-5674090.791	.04	2740534.172	.02	15130-171
84 10 30	961259.822	.01	-5674090.909	.04	2740534.257	.02	15079-160
84 11 9	961259.858	.01	-5674090.851	.03	2740534.193	.02	15079-162

84 11 19	961259.962	.01	-5674090.982	.03	2740534.261	.02	15079-165
84 11 24	961259.880	.01	-5674090.808	.03	2740534.172	.02	15079-170
84 11 29	961259.907	.01	-5674090.931	.03	2740534.227	.02	15136-132
84 12 4	961259.996	.01	-5674091.005	.03	2740534.224	.02	15180-190
84 12 9	961259.944	.01	-5674090.932	.03	2740534.204	.02	15180-191
84 12 14	961259.945	.01	-5674090.915	.04	2740534.212	.02	15180-193
84 12 19	961259.878	.01	-5674090.835	.04	2740534.172	.03	15155-164
84 12 23	961259.862	.01	-5674090.916	.03	2740534.228	.02	15116-193

Table 6.12

GEOCENTRIC RECTANGULAR POSITIONS OF KASHIMA

DATE	X-COMPONENT		Y-COMPONENT		Z-COMPONENT		RUN CODE
	VALUE (m)	SIGMA	VALUE (m)	SIGMA	VALUE (m)	SIGMA	
84 1 24	-3997891.108	.03	3276580.268	.03	3724118.848	.04	15116-144
84 2 24	-3997890.406	.03	3276580.397	.02	3724119.067	.03	15113-194
84 7 28	-3997890.998	.02	3276580.291	.01	3724118.933	.02	15128-171
84 8 4	-3997890.671	.02	3276580.377	.02	3724118.832	.02	15129-121
84 8 30	-3997891.189	.03	3276580.246	.02	3724118.933	.03	15158-142
84 9 2	-3997891.123	.02	3276580.104	.02	3724118.979	.02	15128-161

Table 6.13

GEOCENTRIC RECTANGULAR POSITIONS OF KAUAI

DATE	X-COMPONENT		Y-COMPONENT		Z-COMPONENT		RUN CODE
	VALUE (m)	SIGMA	VALUE (m)	SIGMA	VALUE (m)	SIGMA	
84 7 7	-5543844.524	.02	-2054565.663	.01	2387814.247	.01	15128-170
84 7 21	-5543844.386	.01	-2054565.566	.01	2387814.294	.01	15128-143
84 7 28	-5543844.389	.02	-2054565.487	.01	2387814.298	.01	15128-171
84 8 4	-5543844.276	.03	-2054565.326	.02	2387814.237	.02	15129-121

Table 6.14

GEOCENTRIC RECTANGULAR POSITIONS OF GILCREEK

DATE	X-COMPONENT		Y-COMPONENT		Z-COMPONENT		RUN CODE
	VALUE (m)	SIGMA	VALUE (m)	SIGMA	VALUE (m)	SIGMA	
84 7 7	-2281545.638	.01	-1453645.828	.01	5756993.752	.02	15128-170
84 7 21	-2281545.505	.01	-1453645.878	.01	5756993.806	.01	15128-143
84 7 28	-2281545.433	.01	-1453645.894	.01	5756993.814	.02	15128-171
84 8 4	-2281545.309	.02	-1453645.826	.02	5756993.760	.02	15129-121
84 8 24	-2281545.489	.01	-1453645.956	.01	5756993.814	.01	15129-130
84 8 28	-2281545.403	.01	-1453646.122	.02	5756993.739	.02	15081-181
84 8 30	-2281545.425	.01	-1453645.987	.01	5756993.642	.01	15158-142
84 9 2	-2281545.383	.01	-1453646.055	.01	5756993.736	.01	15128-161

Table 6.15

GEOCENTRIC RECTANGULAR POSITIONS OF KWAJAL26

DATE			X-COMPONENT		Y-COMPONENT		Z-COMPONENT		RUN CODE
			VALUE (m)	SIGMA	VALUE (m)	SIGMA	VALUE (m)	SIGMA	
84	7	7	-6143535.700	.03	1363995.612	.01	1034707.862	.02	15128-170
84	7	21	-6143535.444	.03	1363995.686	.01	1034707.943	.02	15128-143
84	7	28	-6143535.084	.02	1363995.823	.01	1034707.872	.02	15128-171
84	8	4	-6143534.954	.02	1363996.027	.02	1034707.791	.02	15129-121

Table 6.16

GEOCENTRIC RECTANGULAR POSITIONS OF ALGOPARK

DATE	X-COMPONENT VALUE (m)	SIGMA	Y-COMPONENT VALUE (m)	SIGMA	Z-COMPONENT VALUE (m)	SIGMA	RUN CODE
84 8 24	918036.637	.01	-4346132.892	.01	4561971.568	.01	15129-130
84 8 28	918036.727	.01	-4346133.133	.02	4561971.580	.01	15081-181

Table 7.1

VLBI BASELINE LENGTH EVOLUTION
HAYSTACK TO OVRO 130

	DATE			VALUE (cm)	FORMAL ERROR (cm)	RUN CODE	
1	76	9	9	392888165.7	2.2	15140-1422	+
2	76	9	29	392888162.3	2.2	15088-1738	+
3	76	10	4	392888162.2	1.6	15088-1750	+
4	76	10	9	392888163.8	1.9	15119-2000	+
5	76	10	11	392888162.3	1.5	15117-2345	+
6	76	10	14	392888163.0	2.0	15088-1800	+
7	76	12	13	392888157.2	1.3	15118- 2	+
8	76	12	15	392888162.8	1.4	15118- 27	+
9	77	3	27	392888168.1	1.3	15119-1934	+
10	77	6	26	392888165.7	1.8	15119-2023	+
11	77	12	13	392888159.0	2.1	15085-2210	+
12	78	1	13	392888166.2	1.8	15085-2226	+
13	78	2	24	392888171.1	1.7	15120-1804	+
14	78	5	17	392888166.7	1.4	15084-1915	+
15	79	8	3	392888165.4	1.2	15118- 51	
16	79	11	25	392888162.9	1.9	15123-1339	
17	80	4	11	392888164.0	.6	15117-2230	
18	80	7	26	392888163.8	1.2	15144-1737	
19	80	7	27	392888160.4	1.3	15155-2205	
20	80	9	26	392888164.3	1.6	15129-2147	
21	80	9	27	392888168.8	2.2	15129-2130	
22	80	9	28	392888164.4	.9	15129-2201	
23	80	9	29	392888160.8	2.0	15107-1442	
24	80	9	30	392888160.7	1.2	15107-1810	
25	80	10	1	392888158.1	1.3	15109- 101	
26	80	10	2	392888162.1	1.0	15107-1857	
27	80	10	16	392888164.3	.8	15129-2222	
28	80	10	17	392888163.8	1.1	15129-2233	
29	80	10	18	392888162.1	.9	15129-2307	
30	80	10	19	392888165.8	2.5	15129-2319	
31	80	10	20	392888161.5	.9	15130- 2	
32	80	10	21	392888163.0	.9	15130- 12	
33	80	10	22	392888161.7	.7	15129-2041	
34	81	6	16	392888162.0	.8	15103-1727	
35	81	11	18	392888162.1	.6	15155-2227	
36	81	11	19	392888164.2	.6	15155-2244	
37	82	6	16	392888162.0	2.3	15149-2003	*
38	82	6	18	392888167.2	1.0	15156-1156	
39	82	6	19	392888161.2	1.5	15129-2115	
40	82	6	20	392888163.1	1.3	15129-1346	
41	82	6	21	392888163.9	2.0	15107-1944	*
42	82	10	18	392888163.4	1.3	15156-1216	*
43	82	10	25	392888161.7	1.5	15091-1453	*
44	82	12	15	392888163.9	1.1	15129-2058	*
45	82	12	16	392888162.9	.7	15156-1258	*
46	83	6	6	392888163.1	1.1	15130-1833	*

47	84	4	19	392888164.0	1.0	15112-2040
48	84	4	26	392888162.1	0.6	15164-1404
49	84	10	26	392888163.8	1.0	15084-1724

Mean = 392888163.1 ± .3 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 1.5 cm

Slope = .1 ± .2 cm/yr (scaled 1 sigma)

* WESTFORD - OVRO 130 results mapped to HAYSTACK - OVRO 130

+ Mark I data with no ionospheric correction; not used in the estimate of the slope.

47	81	11	19	313564099.5	1.0	15155-2244	
48	81	11	24	313564100.7	1.3	15088-1949	*
49	81	12	2	313564102.0	1.7	15088-2006	*
50	81	12	16	313564100.8	1.2	15086-1454	*
51	81	12	22	313564103.0	1.1	15088-2015	*
52	81	12	29	313564100.4	.9	15088-2030	*
53	82	1	6	313564102.1	.9	15088-2045	*
54	82	1	13	313564099.5	1.2	15088-2058	*
55	82	1	20	313564102.8	1.1	15088-2106	*
56	82	1	27	313564102.7	1.2	15088-2115	*
57	82	2	1	313564101.1	1.3	15088-2129	*
58	82	2	10	313564102.3	.9	15088-2137	*
59	82	2	17	313564100.9	1.0	15088-2143	*
60	82	2	24	313564099.8	1.5	15088-2151	*
61	82	3	3	313564101.6	1.4	15088-2157	*
62	82	3	10	313564101.8	1.7	15088-2204	*
63	82	3	17	313564102.0	2.2	15107-1916	*
64	82	3	24	313564103.6	1.4	15088-2213	*
65	82	3	29	313564098.4	1.5	15088-2220	*
66	82	4	7	313564103.5	1.8	15088-2229	*
67	82	4	13	313564103.0	2.3	15088-2239	*
68	82	4	19	313564104.5	3.5	15089-1928	*
69	82	4	26	313564100.1	2.3	15089-1937	*
70	82	5	3	313564102.0	1.2	15089-1947	*
71	82	5	10	313564101.7	1.3	15089-1955	*
72	82	5	17	313564101.2	1.3	15089-2009	*
73	82	6	2	313564100.2	1.5	15089-2028	*
74	82	6	7	313564102.8	1.5	15089-2039	*
75	82	6	20	313564100.7	1.1	15129-1346	
76	82	6	21	313564102.8	1.4	15107-1944	*
77	82	6	28	313564100.5	1.5	15089-2337	*
78	82	7	6	313564105.6	1.7	15100-1945	*
79	82	7	12	313564101.2	2.2	15089-2347	*
80	82	7	19	313564101.0	1.8	15090- 27	*
81	82	7	26	313564102.8	1.8	15090- 37	*
82	82	8	4	313564099.8	1.9	15089-2046	*
83	82	8	9	313564097.1	1.9	15089-2055	*
84	82	8	16	313564095.3	4.3	15089-2108	*
85	82	8	23	313564103.5	2.5	15089-2123	*
86	82	8	30	313564103.2	1.8	15089-2132	*
87	82	9	7	313564102.9	1.9	15090- 49	*
88	82	9	13	313564102.7	4.4	15098-1628	*
89	82	9	20	313564102.4	8.4	15090- 110	*
90	82	9	27	313564104.6	1.4	15091-1243	*
91	82	10	4	313564099.4	1.9	15091-1254	*
92	82	10	13	313564101.0	1.6	. 091-1311	*
93	82	10	18	313564100.0	.9	15156-1216	*
94	82	10	25	313564099.8	1.9	15091-1453	*
95	82	11	1	313564101.4	1.5	15091-1552	*
96	82	11	8	313564099.1	1.4	15091-1610	*
97	82	11	15	313564101.0	2.4	15091-1623	*
98	82	11	22	313564101.0	1.2	15091-1720	*
99	82	11	29	313564102.0	1.2	15091-1736	*
100	82	12	6	313564097.9	1.3	15091-1822	*
101	82	12	15	313564099.9	.9	15129-2058	*

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102	82	12	16	313564098.8	.9	15156-1258	*
103	82	12	20	313564099.0	1.0	15089-2156	*
104	82	12	27	313564101.9	1.2	15150-1555	*
105	83	1	3	313564099.0	.8	15091-1856	*
106	83	1	10	313564098.4	1.0	15093-2211	*
107	83	1	17	313564101.5	.9	15093-2222	*
108	83	1	24	313564099.8	.8	15096-1841	*
109	83	1	31	313564099.8	.9	15093-2259	*
110	83	2	7	313564102.5	.8	15078-1557	*
111	83	2	14	313564101.5	1.0	15093-2314	*
112	83	2	28	313564102.8	1.3	15095-1639	*
113	83	3	7	313564099.8	.7	15095-1659	*
114	83	3	14	313564102.1	2.0	15095-1733	*
115	83	3	21	313564100.3	2.5	15095-1744	*
116	83	3	28	313564097.9	1.3	15095-1800	*
117	83	4	4	313564100.1	1.3	15095-2118	*
118	83	4	11	313564098.6	1.1	15095-2127	*
119	83	4	25	313564099.6	.8	15100-1831	*
120	83	5	2	313564100.1	1.2	15100-1843	*
121	83	5	5	313564096.0	1.2	15156-2057	
122	83	5	9	313564100.3	1.0	15078-1540	*
123	83	5	16	313564103.0	2.0	15120-1952	*
124	83	5	23	313564096.2	1.4	15096-1851	*
125	83	5	31	313564100.9	1.8	15095-1852	*
126	83	6	6	313564102.4	1.5	15130-1833	*
127	83	6	7	313564100.2	.9	15130-1901	*
128	83	6	9	313564100.1	2.4	15130-1922	*
129	83	6	13	313564105.0	2.2	15096-1902	*
130	83	6	20	313564102.4	1.1	15100-2018	*
131	83	6	28	313564102.4	1.5	15107-2011	*
132	83	7	5	313564101.1	1.7	15105-1833	*
133	83	7	11	313564097.5	1.2	15100-2042	*
134	83	7	25	313564102.7	1.3	15080-2029	*
135	83	8	1	313564103.6	1.8	15100-2053	*
136	83	8	8	313564101.0	1.3	15107-1526	*
137	83	8	15	313564101.3	1.4	15085-2144	*
138	83	8	22	313564100.6	1.5	15158-1707	*
139	83	8	29	313564098.1	2.3	15100-2118	*
140	83	9	2	313564102.4	1.4	15086-1542	*
141	83	9	7	313564102.8	1.3	15086-1554	*
142	83	9	12	313564098.9	2.2	15086-1606	*
143	83	9	17	313564100.9	1.3	15086-1614	*
144	83	9	22	313564100.7	1.5	15103-1805	*
145	83	9	27	313564101.9	1.1	15107-1551	*
146	83	10	2	313564101.7	1.4	15103-1819	*
147	83	10	7	313564100.9	1.3	15103-1833	*
148	83	10	12	313564101.5	1.1	15106-1813	*
149	83	10	17	313564103.4	1.7	15078-1703	*
150	83	10	22	313564101.6	1.4	15105-1903	*
151	83	10	27	313564099.9	1.1	15100-1610	*
152	83	11	1	313564098.7	1.3	15105-1920	*
153	83	11	6	313564100.1	1.1	15105-1943	*
154	83	11	11	313564100.0	1.3	15106-1829	*
155	83	11	16	313564100.4	.9	15095-1954	*
156	83	11	21	313564101.2	.9	15106-1840	*

Table 7.4

VLBI BASELINE LENGTH EVOLUTION
HAYSTACK TO ONSALA60

	DATE			VALUE (cm)	FORMAL ERROR (cm)	RUN CODE	
1	77	9	24	559971505.9	8.8	15123-1412	+
2	78	2	24	559971453.3	10.	15120-1804	+
3	78	5	17	559971456.7	2.2	15084-1915	+
4	80	7	26	559971449.1	1.7	15144-1737	
5	80	7	27	559971449.2	2.1	15155-2205	
6	80	9	26	559971445.0	1.3	15129-2147	
7	80	9	27	559971443.2	1.5	15129-2130	
8	80	9	28	559971451.0	1.1	15129-2201	
9	80	9	29	559971449.2	2.9	15107-1442	
10	80	9	30	559971452.2	1.8	15107-1810	
11	80	10	1	559971440.5	5.4	15109- 101	
12	80	10	2	559971447.0	1.6	15107-1857	
13	80	10	16	559971451.9	.9	15129-2222	
14	80	10	17	559971451.4	1.5	15129-2233	
15	80	10	18	559971446.0	1.4	15129-2307	
16	80	10	19	559971447.5	.7	15129-2319	
17	80	10	20	559971448.3	.9	15130- 2	
18	80	10	21	559971451.7	1.6	15130- 12	
19	80	10	22	559971446.9	.7	15129-2041	
20	80	12	1	559971450.7	1.5	15084-1821	
21	80	12	19	559971443.7	1.0	15130-1641	
22	81	1	22	559971448.6	1.1	15098-1708	
23	81	2	27	559971441.3	1.9	15085-2307	
24	81	10	21	559971451.2	2.4	15098-1753	*
25	81	11	18	559971451.1	2.4	15155-2227	
26	81	11	19	559971454.3	1.3	15155-2244	
27	82	3	17	559971450.5	1.4	15107-1916	*
28	82	4	19	559971451.3	2.3	15089-1928	*
29	82	6	16	559971455.2	2.1	15149-2003	*
30	82	6	18	559971454.1	1.2	15156-1156	
31	82	6	19	559971453.7	1.6	15129-2115	
32	82	6	20	559971454.6	1.3	15129-1346	
33	82	6	21	559971456.1	2.2	15107-1944	*
34	82	9	13	559971448.5	3.7	15098-1628	*
35	82	9	20	559971460.3	4.2	15090- 110	*
36	82	10	18	559971454.2	1.6	15156-1216	*
37	82	11	15	559971455.3	2.6	15091-1623	*
38	82	12	15	559971459.6	2.4	15129-2058	*
39	82	12	16	559971450.4	1.9	15156-1258	*
40	83	2	7	559971448.1	1.9	15078-1557	*
41	83	2	28	559971449.1	1.5	15095-1639	*
42	83	3	14	559971450.6	1.9	15095-1733	*
43	83	4	18	559971454.7	1.7	15103-1737	*
44	83	5	5	559971454.6	1.5	15156-2057	
45	83	5	16	559971453.9	4.0	15120-1952	*
46	83	6	13	559971454.4	3.3	15096-1902	*

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47	83	8	29	559971441.1	5.0	15100-2118	*
48	83	8	30	559971455.2	1.5	15103-1747	
49	83	9	22	559971452.4	2.8	15103-1805	*
50	83	9	23	559971456.3	2.0	15078-1848	
51	83	10	27	559971449.4	3.0	15107-1610	*
52	83	10	28	559971450.5	1.4	15107-1622	
53	83	11	16	559971458.8	1.6	15095-1954	*
54	83	11	17	559971451.6	1.2	15107-1649	
55	83	12	21	559971450.1	2.4	15156-1320	*
56	83	12	22	559971452.3	1.5	15107-2043	
57	84	1	24	559971457.9	1.5	15156-1357	*
58	84	2	23	559971455.9	1.7	15116-1829	*
59	84	2	24	559971453.0	1.2	15078-1855	
60	84	3	14	559971450.2	1.4	15078-2037	*
61	84	4	18	559971455.6	1.6	15156-1441	*
62	84	4	19	559971456.1	.9	15112-2040	
63	84	5	18	559971456.7	1.9	15112-1955	*
64	84	5	19	559971452.3	1.2	15080-2052	
65	84	6	12	559971460.6	2.6	15156-1455	*
66	84	11	14	559971458.4	1.8	15079-1639	*
67	84	11	15	559971454.2	1.2	15084-1738	
68	84	12	19	559971460.7	2.8	15155-1644	*

Mean = 559971451.1 ± .5 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 4.0 cm

Slope = 1.9 ± .2 cm/yr (scaled 1 sigma)

* WESTFORD - ONSALA60 results mapped to HAYSTACK - ONSALA60

+ Mark I data with no ionospheric correction; not used in the estimate of the slope.

Table 7.7

VLBI BASELINE LENGTH EVOLUTION
HAYSTACK TO MARPOINT

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE	
1	82 6 18	67729341.2	.6	15156-1156	
2	82 6 19	67729340.3	.8	15129-2115	
3	82 10 18	67729340.4	.7	15156-1216	*

Mean = 67729340.8 ± .3 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 0.4 cm

* WESTFORD - MARPOINT results mapped to HAYSTACK - MARPOINT

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Table 7.8

VLBI BASELINE LENGTH EVOLUTION
HAYSTACK TO GILCREEK

	DATE			VALUE (cm)	FORMAL ERROR (cm)	RUN CODE	
1	84	8	28	503948220.8	.8	15081-1815	*
2	84	8	30	503948226.0	.8	15158-1424	
3	84	9	2	503948221.6	.7	15128-1618	

Mean = 503948222.8 ± 1.6 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 2.2 cm

* WESTFORD - GILCREEK results mapped to HAYSTACK - GILCREEK

Table 7.11

VLBI BASELINE LENGTH EVOLUTION
HAYSTACK TO WETTZELL

	DATE			VALUE (cm)	FORMAL ERROR (cm)	RUN CODE	
1	83	11	16	599739072.7	1.6	15095-1954	*
2	83	12	21	599739063.7	2.5	15156-1320	*
3	84	1	9	599739070.0	1.8	15095-2015	*
4	84	1	24	599739072.4	1.3	15156-1357	*
5	84	1	29	599739072.0	1.6	15109-1424	*
6	84	2	3	599739070.9	2.8	15109-1452	*
7	84	2	8	599739070.4	2.1	15109-1618	*
8	84	2	18	599739075.1	1.4	15109-1721	*
9	84	2	23	599739073.5	1.7	15116-1829	*
10	84	2	28	599739072.2	2.2	15109-1908	*
11	84	3	4	599739072.3	2.0	15109-1932	*
12	84	3	9	599739073.6	2.1	15109-1953	*
13	84	3	14	599739066.2	1.4	15078-2037	*
14	84	3	19	599739070.9	1.3	15109-1803	*
15	84	3	25	599739072.4	1.4	15109-2010	*
16	84	4	3	599739071.9	2.0	15085-2253	*
17	84	4	8	599739069.3	2.8	15109-2045	*
18	84	4	13	599739071.1	1.8	15112-1756	*
19	84	4	18	599739070.7	1.5	15156-1441	*
20	84	4	23	599739066.7	2.8	15112-1844	*
21	84	4	28	599739068.5	2.2	15112-1918	*
22	84	5	3	599739069.1	2.4	15084-1637	*
23	84	5	8	599739073.1	2.6	15112-1930	*
24	84	5	13	599739070.4	2.7	15112-1943	*
25	84	5	18	599739072.7	1.8	15112-1955	*
26	84	5	23	599739076.5	2.6	15112-2011	*
27	84	5	28	599739073.8	2.1	15112-2051	*
28	84	6	2	599739071.1	2.1	15112-2100	*
29	84	6	7	599739073.1	2.6	15112-2109	*
30	84	6	12	599739073.1	2.2	15156-1455	*
31	84	6	17	599739075.3	1.6	15113-2130	*
32	84	6	22	599739069.0	2.4	15113-2211	*
33	84	6	27	599739070.1	2.1	15113-2227	*
34	84	7	2	599739069.1	2.1	15113-2320	*
35	84	7	7	599739073.7	3.1	15113-2331	*
36	84	7	12	599739075.4	2.5	15113-2343	*
37	84	7	17	599739076.9	2.5	15113-2359	*
38	84	8	1	599739065.4	2.6	15114- 18	*
39	84	8	6	599739079.3	2.7	15114- 39	*
40	84	8	11	599739074.4	2.4	15114- 59	*
41	84	8	16	599739070.0	2.3	15116-1416	*
42	84	8	21	599739080.2	2.4	15116-1437	*
43	84	8	26	599739074.3	2.5	15116-1509	*
44	84	8	30	5[illegible]080.2	1.6	15158-1424	
45	84	8	31	599739072.5	2.5	15116-1525	*
46	84	9	2	599739075.1	1.3	15128-1618	

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47	84	9	5	599739071.7	2.3	15116-1539	*
48	84	9	10	599739077.1	2.2	15116-1552	*
49	84	9	15	599739072.9	2.7	15116-1728	*
50	84	9	20	599739070.1	2.9	15116-1741	*
51	84	9	25	599739075.6	2.5	15081-2129	*
52	84	9	30	599739073.8	2.5	15084-1707	*
53	84	10	5	599739071.4	2.1	15116-1812	*
54	84	10	10	599739071.2	2.3	15116-1846	*
55	84	10	15	599739068.4	2.1	15084-1716	*
56	84	10	20	599739072.6	2.2	15079-1529	*
57	84	10	30	599739075.4	1.8	15079-1605	*
58	84	11	4	599739080.4	2.0	15079-1618	*
59	84	11	9	599739074.5	1.9	15079-1629	*
60	84	11	14	599739078.3	1.8	15079-1639	*
61	84	11	19	599739068.2	1.6	15079-1650	*
62	84	11	24	599739074.7	1.9	15079-1702	*
63	84	11	29	599739074.3	1.7	15136-1325	*
64	84	12	4	599739073.4	1.5	15180-1906	*
65	84	12	9	599739071.6	2.0	15180-1919	*
66	84	12	14	599739070.6	2.0	15180-1937	*
67	84	12	19	599739078.0	2.4	15155-1644	*
68	84	12	23	599739077.9	1.5	15116-1933	*
69	84	12	29	599739074.5	2.2	15116-1955	*

Mean = 599739072.8 ± .4 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 3.3 cm

* WESTFORD - WETTZELL results mapped to HAYSTACK - WETTZELL

Table 7.12

VLBI BASELINE LENGTH EVOLUTION
HAYSTACK TO PLATTVIL(7258)

DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1 83 6 6	275320539.3	1.4	15163-1518
1 84 4 26	275320536.5	1.3	15164-1404

Mean = 275320937.8 ± 1.4 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 1.4 cm

Table 7.13

VLBI BASELINE LENGTH EVOLUTION
OVRO 130 TO NRAO 140

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE	
1	76 10 9	332424424.5	2.1	15119-2000	+
2	76 10 11	332424416.8	2.0	15117-2345	+
3	76 12 13	332424414.8	1.7	15118- 2	+
4	76 12 15	332424417.5	1.9	15118- 27	+
5	77 3 27	332424422.0	1.5	15119-1934	+
6	77 6 26	332424413.9	3.8	15119-2023	+
7	78 5 17	332424418.9	1.3	15084-1915	+
8	79 8 3	332424417.4	1.3	15118- 51	
9	79 11 25	332424420.6	2.1	15123-1339	
10	80 4 11	332424419.6	.5	15117-2230	
11	81 11 18	332424418.6	.5	15155-2227	
12	81 11 19	332424418.8	.8	15155-2244	
13	82 12 15	332424420.7	1.1	15129-2058	
14	82 12 16	332424418.7	.6	15156-1258	

Mean = 332424419.0 ± .3 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 0.7 cm

Slope = -.1 ± .3 cm/yr (scaled 1 sigma)

+ Mark I data with no ionospheric correction; not used in the estimate of the slope.

Table 7.14

VLBI BASELINE LENGTH EVOLUTION
OVRO 130 TO HRAS 085

	DATE			VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	80	4	11	150819537.0	.7	15117-2230
2	80	7	26	150819543.3	1.3	15144-1737
3	80	7	27	150819522.1	1.3	15155-2205
4	80	9	26	150819537.2	1.5	15129-2147
5	80	9	27	150819538.5	1.3	15129-2130
6	80	9	28	150819537.0	.9	15129-2201
7	80	9	29	150819532.4	1.9	15107-1442
8	80	9	30	150819534.4	1.3	15107-1810
9	80	10	1	150819536.4	1.5	15109- 101
10	80	10	2	150819536.8	1.0	15107-1857
11	80	10	16	150819537.2	.8	15129-2222
12	80	10	17	150819539.7	.9	15129-2233
13	80	10	18	150819539.1	.9	15129-2307
14	80	10	19	150819534.7	2.0	15129-2319
15	80	10	20	150819536.1	.8	15130- 2
16	80	10	21	150819537.6	.8	15130- 12
17	80	10	22	150819537.4	.6	15129-2041
18	81	6	16	150819537.1	.7	15103-1727
19	81	11	18	150819538.5	.4	15155-2227
20	81	11	19	150819537.4	.6	15155-2244
21	82	6	20	150819538.2	.9	15129-1346
22	82	6	21	150819538.2	1.0	15107-1944
23	82	10	16	150819535.5	1.3	15133-1319
24	82	10	17	150819537.6	.7	15133-1303
25	82	10	18	150819538.4	.7	15156-1216
26	82	10	23	150819539.3	.7	15133-1332
27	82	10	25	150819539.5	1.2	15091-1453
28	82	12	15	150819539.5	.5	15129-2058
29	82	12	16	150819537.4	.6	15156-1258
30	83	2	24	150819528.7	6.5	15119-1805
31	83	6	6	150819536.5	1.0	15130-1833
32	83	6	27	150819541.3	1.1	15103-1907
33	83	6	29	150819538.0	.9	15100-1921
34	83	8	23	150819540.0	.6	15109-1518
35	83	11	5	150819538.3	1.1	15140-1911
36	84	4	12	150819538.3	.7	15156-1428
37	84	4	26	150819539.3	.4	15164-1404

Mean = 150819537.9 ± .4 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 2.1 cm

Slope = .7 ± .3 cm/yr (scaled 1 sigma)

Table 7.15

VLBI BASELINE LENGTH EVOLUTION
OVRO 130 TO ONSALA60

	DATE			VALUE (cm)	FORMAL ERROR (cm)	RUN CODE	
1	78	2	24	791413125.1	13.	15120-1804	+
2	78	5	17	791413103.9	3.4	15084-1915	+
3	80	7	26	791413106.8	2.4	15144-1737	
4	80	7	27	791413088.7	2.5	15155-2205	
5	80	9	26	791413095.1	2.8	15129-2147	
6	80	9	27	791413097.9	3.0	15129-2130	
7	80	9	28	791413104.7	2.0	15129-2201	
8	80	9	29	791413087.7	4.9	15107-1442	
9	80	9	30	791413102.2	2.9	15107-1810	
10	80	10	1	791413081.7	4.3	15109- 101	
11	80	10	2	791413098.1	1.9	15107-1857	
12	80	10	16	791413100.0	1.6	15129-2222	
13	80	10	17	791413107.2	2.4	15129-2233	
14	80	10	18	791413102.9	1.9	15129-2307	
15	80	10	19	791413104.7	4.7	15129-2319	
16	80	10	20	791413101.6	1.8	15130- 2	
17	80	10	21	791413104.4	2.5	15130- 12	
18	80	10	22	791413097.4	1.5	15129-2041	
19	81	11	18	791413122.8	7.3	15155-2227	
20	81	11	19	791413104.0	1.7	15155-2244	
21	82	6	16	791413094.3	4.6	15149-2003	
22	82	6	18	791413103.4	1.9	15156-1156	
23	82	6	19	791413106.2	3.1	15129-2115	
24	82	6	20	791413098.6	2.8	15129-1346	
25	82	6	21	791413101.9	4.0	15107-1944	
26	82	10	18	791413098.3	2.8	15156-1216	
27	82	12	15	791413115.8	4.2	15129-2058	
28	82	12	16	791413100.7	2.2	15156-1258	
29	84	4	19	791413101.2	2.0	15112-2040	

Mean = 791413100.9 ± 1.0 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 5.0 cm

Slope = .8 ± .9 cm/yr (scaled sigma)

+ Mark I data with no ionospheric correction; not used in the estimate of the slope.

Table 7.16

VLBI BASELINE LENGTH EVOLUTION
OVRO 130 TO EFLSBERG

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	79 11 25	820374249.4	3.2	15123-1339
2	80 7 26	820374265.7	2.5	15144-1737
3	80 7 27	820374232.8	2.7	15155-2205
4	80 9 26	820374243.5	3.1	15129-2147
5	80 9 27	820374253.2	2.9	15129-2130
6	80 9 28	820374251.1	1.9	15129-2201

Mean = 820374250.1 ± 4.4 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 9.8 cm

Table 7.17

VLBI BASELINE LENGTH EVOLUTION
OVRO 130 TO MARPOINT

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	82 6 18	354082447.5	1.1	15156-1156
2	82 6 19	354082448.0	1.6	15129-2115
3	82 10 18	354082447.1	1.3	15156-1216

Mean = 354082447.5 ± .2 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 0.3 cm

Table 7.18

VLBI BASELINE LENGTH EVOLUTION
OVRO 130 TO MOJAVE12

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	83 6 27	24527643.6	.8	15103-1907
2	83 6 29	24527645.1	.5	15100-1921
3	83 8 22	24527644.2	.7	15149-1923
4	83 8 22	24527645.7	.4	15149-1952
5	83 8 23	24527645.6	.4	15109-1518
6	83 8 25	24527644.8	.7	15119-1756
7	83 8 27	24527644.8	1.9	15107-1540
8	83 8 31	24527645.9	.7	15140-1855
9	83 10 31	24527645.3	.3	15140-1903
10	83 11 5	24527644.5	.4	15140-1911
11	83 11 12	24527644.9	.7	15140-1953
12	84 2 20	24527643.2	.6	15149-2020
13	84 2 23	24527648.5	1.7	15149-2028
14	84 2 26	24527650.9	1.2	15149-2036
15	84 4 9	24527644.6	.3	15150-1604
16	84 4 12	24527644.9	.4	15156-1428
17	84 4 26	24527644.9	.2	15164-1404
18	84 10 22	24527644.8	.7	15155-1632
19	84 10 25	24527645.6	.8	15149-2222
20	84 10 28	24527646.1	.9	15149-2228

Mean = 24527645.1 ± .2 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 0.8 cm

Slope = -.2 ± .5 cm/yr (scaled 1 sigma)

Table 7.19

VLBI BASELINE LENGTH EVOLUTION
OVRO 130 TO CHLBOLTN

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	80 10 16	784699128.3	2.1	15129-2222
2	80 10 17	784699128.6	2.8	15129-2233
3	80 10 18	784699131.6	3.2	15129-2307
4	80 10 19	784699131.6	4.8	15129-2319
5	80 10 20	784699130.6	2.6	15130- 2
6	80 10 21	784699109.1	3.6	15130- 12
7	80 10 22	784699125.8	2.0	15129-2041

Mean = 784699126.9 ± 2.3 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 5.6 cm

Table 7.20

VLBI BASELINE LENGTH EVOLUTION
OVRO 130 TO WESTFORD

	DATE			VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	81	6	16	392857934.2	.9	15103-1727
2	81	11	18	392857934.4	.6	15155-2227
3	81	11	19	392857936.4	.6	15155-2244
4	82	6	16	392857934.3	2.3	15149-2003
5	82	6	18	392857940.6	1.0	15156-1156
6	82	6	19	392857932.3	1.8	15129-2115
7	82	6	20	392857935.5	1.3	15129-1346
8	82	6	21	392857936.3	2.0	15107-1944
9	82	10	18	392857935.8	1.3	15156-1216
10	82	10	25	392857934.1	1.5	15091-1453
11	82	12	15	392857936.3	1.1	15129-2058
12	82	12	16	392857935.2	.7	15156-1258
13	83	6	6	392857935.5	1.1	15130-1833

Mean = 392857935.5 ± .5 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 1.7 cm

Slope = .5 ± .8 cm/yr (scaled 1 sigma)

Table 7.21

VLBI BASELINE LENGTH EVOLUTION
OVRO 130 TO HATCREEK

	DATE			VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	83	6	6	48432152.7	.5	15130-1833
2	83	6	27	48432153.3	1.2	15103-1907
3	83	6	29	48432152.6	.6	15100-1921
4	84	2	23	48432150.7	1.7	15149-2028
5	84	2	26	48432146.5	1.2	15149-2036
6	84	4	12	48432153.8	.4	15156-1428
7	84	4	26	48432153.2	.3	15164-1404

Mean = 48432152.8 ± .7 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 1.1 cm

Table 7.22

VLBI BASELINE LENGTH EVOLUTION
OVRO 130 TO PLATTVIL(7258)

	DATE			VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	83	6	6	122081874.2	.7	15163-1518
2	84	4	26	122081873.3	.7	15164-1404

Weighted rms scatter about the mean = 0.5 cm

Table 7.23

VLBI BASELINE LENGTH EVOLUTION
NRAO 140 TO HRAS 085

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	80 4 11	235463400.2	.9	15117-2230
2	81 11 18	235463401.0	.4	15155-2227
3	81 11 19	235463398.6	.9	15155-2244
4	82 12 15	235463400.5	.9	15129-2058
5	82 12 16	235463399.1	.7	15156-1258

Mean = 235463400.3 ± .5 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 0.9 cm

Table 7.24

VLBI BASELINE LENGTH EVOLUTION
NRAO 140 TO ONSALA60

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE	
1	77 9 24	631931811.2	9.7	15123-1412	+
2	78 5 17	631931761.9	2.4	15084-1915	+
3	81 11 18	631931756.9	3.1	15155-2227	
4	81 11 19	631931756.7	1.6	15155-2244	
5	82 12 15	631931763.7	2.9	15129-2058	
6	82 12 16	631931752.8	2.0	15156-1258	

Mean = 631931756.6 ± 1.9 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 1.7 cm

+ Mark I data with no ionospheric correction.

Table 7.25

VLBI BASELINE LENGTH EVOLUTION
NRAO 140 TO EFLSBERG

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	79 11 25	633464844.6	3.0	15123-1339

Table 7.26

VLBI BASELINE LENGTH EVOLUTION
NRAO 140 TO WESTFORD

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	81 11 18	84414808.3	.3	15155-2227
2	81 11 19	84414809.0	.5	15155-2244
3	82 12 15	84414808.3	.9	15129-2058
4	82 12 16	84414808.4	.6	15156-1258

Mean = 84414808.5 ± .2 cm (scaled 1 sigma)

Weighted rms scatter about the mean = .3 cm

Table 7.27

VLBI BASELINE LENGTH EVOLUTION
EFLSBERG TO ONSALA60

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	80 7 26	83221052.4	.9	15144-1737
2	80 7 27	83221050.7	1.0	15155-2205
3	80 9 26	83221050.2	.6	15129-2147
4	80 9 27	83221052.5	.6	15129-2130
5	80 9 28	83221050.7	.6	15129-2201
6	83 5 5	83221051.7	.8	15156-2057

Mean = 83221051.3 ± .4 cm (scaled 1 sigma)

Weighted rms scatter about the mean = .9 cm

Slope = .2 ± .5 cm/yr (scaled 1 sigma)

Table 7.28

VLBI BASELINE LENGTH EVOLUTION
EFLSBERG TO HRAS 085

	DATE			VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	80	7	26	808418521.0	3.6	15144-1737
2	80	7	27	808418423.1	4.5	15155-2205
3	80	9	26	808418481.5	5.7	15129-2147
4	80	9	27	808418490.9	4.6	15129-2130
5	80	9	28	808418488.8	3.8	15129-2201
6	83	5	5	808418486.7	2.1	15156-2057

Mean = 808418486.2 ± 10.8 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 24. cm

Table 7.29

VLBI BASELINE LENGTH EVOLUTION
ONSALA60 TO HRAS 085

	DATE			VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	80	7	26	794073248.7	3.5	15144-1737
2	80	7	27	794073165.7	4.4	15155-2205
3	80	9	26	794073219.6	5.5	15129-2147
4	80	9	27	794073222.6	4.6	15129-2130
5	80	9	28	794073228.7	3.8	15129-2201
6	80	9	29	794073210.7	7.4	15107-1442
7	80	9	30	794073221.2	5.6	15107-1810
8	80	10	1	794073215.3	7.0	15109- 101
9	80	10	2	794073219.7	3.3	15107-1857
10	80	10	16	794073218.7	2.9	15129-2222
11	80	10	17	794073236.8	3.4	15129-2233
12	80	10	18	794073230.3	3.6	15129-2307
13	80	10	19	794073216.6	2.7	15129-2319
14	80	10	20	794073222.7	2.7	15130- 2
15	80	10	21	794073227.4	3.5	15130- 12
16	80	10	22	794073223.1	2.1	15129-2041
17	80	12	1	794073235.9	5.2	15084-1821
18	80	12	19	794073217.2	3.7	15130-1641
19	81	1	22	794073221.6	5.8	15098-1708
20	81	2	27	794073212.1	8.0	15085-2307
21	81	10	21	794073227.5	5.5	15098-1753
22	81	11	18	794073240.5	5.6	15155-2227
23	81	11	19	794073221.2	2.6	15155-2244
24	82	3	17	794073225.9	5.4	15107-1916
25	82	4	19	794073229.5	8.6	15089-1928
26	82	6	20	794073225.2	2.8	15129-1346
27	82	6	21	794073229.2	3.3	15107-1944
28	82	9	13	794073240.1	11.	15098-1628
29	82	9	20	794073236.5	21.	15090- 110
30	82	10	18	794073220.6	2.4	15156-1216
31	82	11	15	794073241.5	7.1	15091-1623
32	82	12	15	794073237.0	3.8	15129-2058
33	82	12	16	794073221.1	2.7	15156-1258
34	83	2	7	794073226.4	3.3	15078-1557
35	83	2	28	794073220.7	3.3	15095-1639
36	83	3	14	794073218.7	5.1	15095-1733
37	83	5	5	794073227.4	1.9	15156-2057
38	83	5	16	794073221.6	7.5	15120-1952
39	83	6	13	794073238.6	6.8	15096-1902
40	83	8	29	794073186.0	6.6	15100-2118
41	83	9	22	794073221.9	4.9	15103-1805
42	83	10	27	794073219.0	4.1	15107-1610
43	83	11	16	794073222.4	2.4	15095-1954
44	83	12	21	794073219.9	4.5	15156-1320
45	84	1	24	794073228.1	2.8	15156-1357
46	84	2	23	794073221.1	4.2	15116-1829

47	84	3	14	794073223.7	3.2	15078-2037
48	84	4	18	794073229.3	4.9	15156-1441
49	84	5	18	794073225.7	4.0	15112-1955
50	84	6	12	794073239.9	5.3	15156-1455
51	84	11	14	794073226.6	3.5	15079-1639
52	84	12	19	794073221.7	5.0	15155-1644

Mean = 794073223.9 ± 1.4 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 9.9 cm

Slope = .7 ± 1.0 cm/yr (scaled 1 sigma)

Table 7.30

VLBI BASELINE LENGTH EVOLUTION
ONSALA60 TO WETTZELL

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	83 11 16	91966100.4	.5	15095-1954
2	83 12 21	91966098.5	.8	15156-1320
3	84 1 24	91966100.5	.7	15156-1357
4	84 2 23	91966100.1	.5	15116-1829
5	84 3 14	91966100.3	.8	15078-2037
6	84 4 18	91966099.6	.5	15156-1441
7	84 5 18	91966099.8	.6	15112-1955
8	84 6 12	91966101.6	1.1	15156-1455
9	84 11 14	91966101.5	.8	15079-1639
10	84 12 19	91966098.1	.9	15155-1644

Mean = 91966100.0 ± .3 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 0.8 cm

Table 7.31

VLBI BASELINE LENGTH EVOLUTION
ONSALA60 TO CHLBOLTN

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	80 10 16	110986432.5	.8	15129-2222
2	80 10 17	110986435.1	1.2	15129-2233
3	80 10 18	110986429.8	2.1	15129-2307
4	80 10 19	110986433.2	.7	15129-2319
5	80 10 20	110986432.0	1.0	15130- 2
6	80 10 21	110986431.3	1.6	15130- 12
7	80 10 22	110986433.5	.6	15129-2041

Mean = 110986433.0 ± .4 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 1.0 cm

Table 7.32

VLBI BASELINE LENGTH EVOLUTION
ONSALA60 TO WESTFORD

	DATE			VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	81	10	21	560074145.3	2.4	15098-1753
2	81	11	18	560074145.7	2.4	15155-2227
3	81	11	19	560074149.2	1.3	15155-2244
4	82	3	17	560074144.6	1.4	15107-1916
5	82	4	19	560074145.4	2.3	15089-1928
6	82	6	16	560074149.3	2.1	15149-2003
7	82	6	18	560074149.4	1.2	15156-1156
8	82	6	19	560074148.1	1.8	15129-2115
9	82	6	20	560074150.2	1.3	15129-1346
10	82	6	21	560074150.2	2.2	15107-1944
11	82	9	13	560074142.7	3.7	15098-1628
12	82	9	20	560074154.5	4.2	15090- 110
13	82	10	18	560074148.3	1.6	15156-1216
14	82	11	15	560074149.5	2.6	15091-1623
15	82	12	15	560074153.8	2.4	15129-2058
16	82	12	16	560074144.6	1.9	15156-1258
17	83	2	7	560074142.3	1.9	15078-1557
18	83	2	28	560074143.2	1.5	15095-1639
19	83	3	14	560074144.7	1.9	15095-1733
20	83	4	18	560074148.8	1.7	15103-1737
21	83	5	5	560074140.7	2.1	15156-2057
22	83	5	16	560074148.1	4.0	15120-1952
23	83	6	13	560074148.5	3.3	15096-1902
24	83	8	29	560074135.2	5.0	15100-2118
25	83	9	22	560074146.5	2.8	15103-1805
26	83	10	27	560074143.6	3.0	15107-1610
27	83	11	16	560074152.9	1.6	15095-1954
28	83	12	21	560074144.2	2.4	15156-1320
29	84	1	24	560074152.0	1.5	15156-1357
30	84	2	23	560074150.1	1.7	15116-1829
31	84	3	14	560074144.3	1.4	15078-2037
32	84	4	18	560074149.8	1.6	15156-1441
33	84	5	18	560074150.8	1.9	15112-1955
34	84	6	12	560074154.8	2.6	15156-1455
35	84	11	14	560074152.5	1.8	15079-1639
36	84	12	19	560074154.9	2.8	15155-1644

Mean = 560074148.1 ± .6 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 3.5 cm

Slope = 1.0 ± .7 cm/yr (scaled 1 sigma)

Table 7.33

VLBI BASELINE LENGTH EVOLUTION
ONSALA60 TO MARPOINT

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	82 6 18	619844106.3	1.4	15156-1156
2	82 6 19	619844112.4	2.0	15129-2115
3	82 10 18	619844107.2	2.2	15156-1216

Mean = 619844108.0 ± 1.8 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 2.5 cm

Table 7.34

VLBI BASELINE LENGTH EVOLUTION
ONSALA60 TO MOJAVE12

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	83 10 27	802111751.8	4.1	15107-1610

Table 7.35

VLBI BASELINE LENGTH EVOLUTION
ONSALA60 TO RICHMOND

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	83 12 21	730715259.6	16.	15156-1320
2	84 1 24	730715259.9	4.0	15156-1357
3	84 4 18	730715253.9	2.8	15156-1441
4	84 6 12	730715262.4	4.5	15156-1455
5	84 12 19	730715251.4	4.2	15155-1644

Mean = 730715256.2 ± 2.0 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 4.0 cm

Table 7.36

VLBI BASELINE LENGTH EVOLUTION
CHLBOLTN TO HRAS 085

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	80 10 16	766373735.3	3.0	15129-2222
2	80 10 17	766373745.6	3.5	15129-2233
3	80 10 18	766373747.6	4.3	15129-2307
4	80 10 19	766373732.2	2.9	15129-2319
5	80 10 20	766373740.3	3.2	15130- 2
6	80 10 21	766373720.6	4.2	15130- 12
7	80 10 22	766373739.4	2.4	15129-2041

Mean = 766373737.5 ± 2.8 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 6.8 cm

Table 7.37

VLBI BASELINE LENGTH EVOLUTION
WESTFORD TO HRAS 085

	DATE			VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	81	5	13	313492801.5	1.9	15140-1502
2	81	6	16	313492798.6	1.3	15103-1727
3	81	6	24	313492802.0	2.1	15085-2319
4	81	7	1	313492807.1	1.6	15078-1935
5	81	7	8	313492805.6	1.6	15085-2327
6	81	7	15	313492807.8	3.3	15085-2332
7	81	7	22	313492805.1	.9	15085-2338
8	81	7	29	313492806.2	1.3	15085-2345
9	81	8	5	313492805.5	1.8	15085-2351
10	81	8	26	313492803.7	1.3	15086-1308
11	81	9	2	313492806.6	1.7	15086-1319
12	81	9	9	313492805.3	1.5	15086-1336
13	81	9	16	313492804.8	1.6	15086-1352
14	81	9	23	313492802.8	1.8	15078-2046
15	81	9	30	313492804.3	1.3	15078-2053
16	81	10	15	313492811.8	2.3	15086-1407
17	81	10	21	313492804.4	2.4	15098-1753
18	81	10	28	313492801.1	1.4	15086-1419
19	81	11	4	313492803.5	1.9	15086-1429
20	81	11	10	313492801.8	1.1	15086-1442
21	81	11	18	313492801.9	.6	15155-2227
22	81	11	19	313492800.1	1.0	15155-2244
23	81	11	24	313492801.8	1.3	15088-1949
24	81	12	2	313492803.1	1.7	15088-2006
25	81	12	16	313492801.9	1.2	15086-1454
26	81	12	22	313492804.1	1.1	15088-2015
27	81	12	29	313492801.5	.9	15088-2030
28	82	1	6	313492803.2	.9	15088-2045
29	82	1	13	313492800.6	1.2	15088-2058
30	82	1	20	313492803.9	1.1	15088-2106
31	82	1	27	313492803.8	1.2	15088-2115
32	82	2	1	313492802.2	1.3	15088-2129
33	82	2	10	313492803.4	.9	15088-2137
34	82	2	17	313492802.0	1.0	15088-2143
35	82	2	24	313492800.9	1.5	15088-2151
36	82	3	3	313492802.7	1.4	15088-2157
37	82	3	10	313492802.8	1.7	15088-2204
38	82	3	17	313492803.1	2.2	15107-1916
39	82	3	24	313492804.6	1.4	15088-2213
40	82	3	29	313492799.5	1.5	15088-2220
41	82	4	7	313492804.6	1.8	15088-2229
42	82	4	13	313492804.1	2.3	15088-2239
43	82	4	19	313492805.6	3.5	15089-1928
44	82	4	26	313492801.2	2.3	15089-1937
45	82	5	3	313492803.1	1.2	15089-1947
46	82	5	10	313492802.8	1.3	15089-1955

47	82	5	17	313492802.3	1.3	15089-2009
48	82	6	2	313492801.3	1.5	15089-2028
49	82	6	7	313492803.9	1.5	15089-2039
50	82	6	20	313492801.5	1.1	15129-1346
51	82	6	21	313492803.9	1.4	15107-1944
52	82	6	28	313492801.6	1.5	15089-2337
53	82	7	6	313492806.7	1.7	15100-1945
54	82	7	12	313492802.3	2.2	15089-2347
55	82	7	19	313492802.1	1.8	15090- 27
56	82	7	26	313492804.0	1.8	15090- 37
57	82	8	4	313492800.9	1.9	15089-2046
58	82	8	9	313492798.2	1.9	15089-2055
59	82	8	16	313492796.4	4.3	15089-2108
60	82	8	23	313492804.6	2.5	15089-2123
61	82	8	30	313492804.3	1.8	15089-2132
62	82	9	7	313492804.0	1.9	15090- 49
63	82	9	13	313492803.8	4.4	15098-1628
64	82	9	20	313492803.5	8.4	15090- 110
65	82	9	27	313492805.7	1.4	15091-1243
66	82	10	4	313492800.5	1.9	15091-1254
67	82	10	13	313492802.1	1.6	15091-1311
68	82	10	18	313492801.1	.9	15156-1216
69	82	10	25	313492800.9	1.9	15091-1453
70	82	11	1	313492802.5	1.5	15091-1552
71	82	11	8	313492800.2	1.4	15091-1610
72	82	11	15	313492802.1	2.4	15091-1623
73	82	11	22	313492802.1	1.2	15091-1720
74	82	11	29	313492803.1	1.2	15091-1736
75	82	12	6	313492799.0	1.3	15091-1822
76	82	12	15	313492801.0	.9	15129-2058
77	82	12	16	313492799.9	.9	15156-1258
78	82	12	20	313492800.1	1.0	15089-2156
79	82	12	27	313492803.0	1.2	15150-1555
80	83	1	3	313492800.1	.8	15091-1856
81	83	1	10	313492799.5	1.0	15093-2211
82	83	1	17	313492802.6	.9	15093-2222
83	83	1	24	313492800.9	.8	15096-1841
84	83	1	31	313492800.9	.9	15093-2259
85	83	2	7	313492803.6	.8	15078-1557
86	83	2	14	313492802.6	1.0	15093-2314
87	83	2	28	313492803.9	1.3	15095-1639
88	83	3	7	313492800.9	.7	15095-1659
89	83	3	14	313492803.2	2.0	15095-1733
90	83	3	21	313492801.4	2.5	15095-1744
91	83	3	28	313492799.0	1.3	15095-1800
92	83	4	4	313492801.2	1.3	15095-2118
93	83	4	11	313492799.7	1.1	15095-2127
94	83	4	25	313492800.7	.8	15100-1831
95	83	5	2	313492801.2	1.2	15100-1843
96	83	5	5	313492806.9	2.1	15156-2057
97	83	5	9	313492801.3	1.0	15078-1540
98	83	5	16	313492804.1	2.0	15120-1952
99	83	5	23	313492797.3	1.4	15096-1851
100	83	5	31	313492802.0	1.8	15095-1852
101	83	6	6	313492803.5	1.5	15130-1833

102	83	6	7	313492801.3	.9	15130-1901
103	83	6	9	313492801.2	2.4	15130-1922
104	83	6	13	313492806.1	2.2	15096-1902
105	83	6	20	313492803.5	1.1	15100-2018
106	83	6	28	313492803.5	1.5	15107-2011
107	83	7	5	313492802.2	1.7	15105-1833
108	83	7	11	313492798.6	1.2	15100-2042
109	83	7	25	313492803.8	1.3	15080-2029
110	83	8	1	313492804.7	1.8	15100-2053
111	83	8	8	313492802.1	1.3	15107-1526
112	83	8	15	313492802.4	1.4	15085-2144
113	83	8	22	313492801.7	1.5	15158-1707
114	83	8	29	313492799.2	2.3	15100-2118
115	83	9	2	313492803.5	1.4	15086-1542
116	83	9	7	313492803.9	1.3	15086-1554
117	83	9	12	313492800.0	2.2	15086-1606
118	83	9	17	313492802.0	1.3	15086-1614
119	83	9	22	313492801.8	1.5	15103-1805
120	83	9	27	313492803.1	1.1	15107-1551
121	83	10	2	313492802.8	1.4	15103-1819
122	83	10	7	313492802.1	1.3	15103-1833
123	83	10	12	313492802.6	1.1	15106-1813
124	83	10	17	313492804.5	1.7	15078-1703
125	83	10	22	313492802.7	1.4	15105-1903
126	83	10	27	313492801.0	1.1	15107-1610
127	83	11	1	313492799.8	1.3	15105-1920
128	83	11	6	313492801.3	1.1	15105-1943
129	83	11	11	313492801.1	1.3	15106-1829
130	83	11	16	313492801.5	.9	15095-1954
131	83	11	21	313492802.3	.9	15106-1840
132	83	11	26	313492801.5	.9	15106-1857
133	83	12	1	313492800.5	.9	15106-1931
134	83	12	6	313492799.1	1.4	15106-1944
135	83	12	11	313492800.6	.8	15106-1959
136	83	12	16	313492801.6	.8	15106-2006
137	83	12	21	313492802.3	1.6	15156-1320
138	83	12	26	313492800.7	.8	15103-1846
139	83	12	31	313492800.4	.9	15109- 135
140	84	1	4	313492800.2	.8	15109- 158
141	84	1	9	313492800.6	.9	15095-2015
142	84	1	14	313492801.4	.8	15095-2036
143	84	1	24	313492802.7	1.1	15156-1357
144	84	1	29	313492801.3	1.0	15109-1424
145	84	2	3	313492801.5	1.1	15109-1452
146	84	2	8	313492802.3	1.6	15109-1618
147	84	2	13	313492801.4	.8	15109-1648
148	84	2	18	313492803.1	.9	15109-1721
149	84	2	23	313492805.4	1.8	15116-1829
150	84	2	28	313492800.8	1.9	15109-1908
151	84	3	4	313492803.5	1.6	15109-1932
152	84	3	9	313492801.7	1.8	15109-1953
153	84	3	14	313492802.7	1.2	15078-2037
154	84	3	19	313492800.1	1.3	15109-1803
155	84	3	25	313492801.8	1.2	15109-2010
156	84	4	3	313492805.5	2.2	15085-2253

157	84	4	8	313492800.8	1.8	15109-2045
158	84	4	13	313492804.3	1.6	15112-1756
159	84	4	18	313492803.1	2.0	15156-1441
160	84	4	23	313492804.2	2.3	15112-1844
161	84	4	28	313492801.2	2.0	15112-1918
162	84	5	3	313492793.7	5.1	15084-1637
163	84	5	8	313492801.9	2.2	15112-1930
164	84	5	13	313492796.5	2.6	15112-1943
165	84	5	18	313492803.4	1.5	15112-1955
166	84	5	23	313492804.7	2.4	15112-2011
167	84	5	28	313492803.2	1.7	15112-2051
168	84	6	2	313492801.4	1.8	15112-2100
169	84	6	7	313492804.0	3.1	15112-2109
170	84	6	12	313492805.6	1.8	15156-1455
171	84	6	17	313492802.1	1.2	15113-2130
172	84	6	22	313492801.0	1.9	15113-2211
173	84	6	27	313492795.8	1.7	15113-2227
174	84	7	2	313492803.0	1.7	15113-2320
175	84	7	7	313492801.6	1.6	15113-2331
176	84	7	12	313492805.1	1.4	15113-2343
177	84	7	17	313492800.8	1.4	15113-2359
178	84	7	22	313492799.7	2.1	15114- 9
179	84	7	27	313492799.9	2.5	15113-2302
180	84	8	1	313492799.4	1.5	15114- 18
181	84	8	6	313492804.8	1.3	15114- 39
182	84	8	11	313492806.2	1.4	15114- 59
183	84	8	16	313492804.7	1.7	15116-1416
184	84	8	21	313492803.0	1.4	15116-1437
185	84	8	26	313492800.5	1.6	15116-1509
186	84	8	28	313492799.9	.5	15081-1815
187	84	8	31	313492800.5	1.5	15116-1525
188	84	9	5	313492799.0	1.4	15116-1539
189	84	9	10	313492799.9	1.2	15116-1552
190	84	9	15	313492800.8	1.7	15116-1728
191	84	9	20	313492797.6	1.8	15116-1741
192	84	9	25	313492800.7	1.4	15081-2129
193	84	9	30	313492799.8	1.4	15084-1707
194	84	10	5	313492802.9	1.2	15116-1812
195	84	10	10	313492803.6	1.8	15116-1846
196	84	10	15	313492799.9	1.2	15084-1716
197	84	10	20	313492802.4	1.3	15079-1529
198	84	10	25	313492803.1	1.3	15130-1718
199	84	10	30	313492801.8	1.1	15079-1605
200	84	11	4	313492804.7	1.4	15079-1618
201	84	11	9	313492800.7	1.1	15079-1629
202	84	11	14	313492801.6	1.2	15079-1639
203	84	11	19	313492799.1	.9	15079-1650
204	84	11	24	313492800.3	1.1	15079-1702
205	84	11	29	313492802.5	1.0	15136-1325
206	84	12	4	313492798.9	1.0	15180-1906
207	84	12	9	313492799.3	1.1	15180-1919
208	84	12	14	313492801.2	1.2	15180-1937
209	84	12	19	313492800.4	1.4	15155-1644
210	84	12	23	313492798.7	.8	15116-1933
211	84	12	29	313492802.7	1.4	15116-1955

Mean = 313492801.8 ± .1 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 1.8 cm

Slope = -.6 ± .1 cm/yr (scaled 1 sigma)

Table 7.38

VLBI BASELINE LENGTH EVOLUTION
WESTFORD TO MARPOINT

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	82 6 18	67617892.9	.6	15156-1156
2	82 6 19	67617890.7	.9	15129-2115
3	82 10 18	67617891.4	.7	15156-1216

Mean = 67617892.0 ± .6 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 0.9 cm

Table 7.39

VLBI BASELINE LENGTH EVOLUTION
WESTFORD TO HATCREEK

	DATE			VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	83	6	6	403281905.5	1.2	15130-1833
2	83	6	9	403281904.2	1.8	15130-1922

Mean = 403281905.1 ± .6 cm (scaled 1 sigma)

Weighted rms scatter about the mean = .6 cm

Table 7.40

VLBI BASELINE LENGTH EVOLUTION
WESTFORD TO MOJAVE12

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	83 6 28	390376779.1	1.9	15107-2011
2	83 7 25	390376776.3	1.2	15080-2029
3	83 8 8	390376773.3	1.2	15107-1526
4	83 9 27	390376777.4	1.1	15107-1551
5	83 10 12	390376775.7	1.2	15106-1813
6	83 10 27	390376778.3	1.1	15107-1610
7	83 11 21	390376776.4	.9	15106-1840
8	83 12 1	390376774.5	.7	15106-1931
9	84 1 4	390376776.0	.7	15109- 158

Mean = 390376776.0 ± .5 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 1.4 cm

Table 7.41

VLBI BASELINE LENGTH EVOLUTION
WESTFORD TO WETTZELL

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	83 11 16	599832536.6	1.6	15095-1954
2	83 12 21	599832527.6	2.5	15156-1320
3	84 1 9	599832533.9	1.8	15095-2015
4	84 1 24	599832536.2	1.3	15156-1357
5	84 1 29	599832535.9	1.6	15109-1424
6	84 2 3	599832534.7	2.8	15109-1452
7	84 2 8	599832534.2	2.1	15109-1618
8	84 2 18	599832538.9	1.4	15109-1721
9	84 2 23	599832537.3	1.7	15116-1829
10	84 2 28	599832536.0	2.2	15109-1908
11	84 3 4	599832536.2	2.0	15109-1932
12	84 3 9	599832537.4	2.1	15109-1953
13	84 3 14	599832530.0	1.4	15078-2037
14	84 3 19	599832534.8	1.3	15109-1803
15	84 3 25	599832536.2	1.4	15109-2010
16	84 4 3	599832535.7	2.0	15085-2253
17	84 4 8	599832533.1	2.8	15109-2045
18	84 4 13	599832535.0	1.8	15112-1756
19	84 4 18	599832534.5	1.5	15156-1441
20	84 4 23	599832530.6	2.8	15112-1844
21	84 4 28	599832532.4	2.2	15112-1918
22	84 5 3	599832532.9	2.4	15084-1637
23	84 5 8	599832536.9	2.6	15112-1930
24	84 5 13	599832534.3	2.7	15112-1943
25	84 5 18	599832536.6	1.8	15112-1955
26	84 5 23	599832540.3	2.6	15112-2011
27	84 5 28	599832537.7	2.1	15112-2051
28	84 6 2	599832535.0	2.1	15112-2100
29	84 6 7	599832537.0	2.6	15112-2109
30	84 6 12	599832536.9	2.2	15156-1455
31	84 6 17	599832539.2	1.6	15113-2130
32	84 6 22	599832532.8	2.4	15113-2211
33	84 6 27	599832533.9	2.1	15113-2227
34	84 7 2	599832533.0	2.1	15113-2320
35	84 7 7	599832537.6	3.1	15113-2331
36	84 7 12	599832539.3	2.5	15113-2343
37	84 7 17	599832540.8	2.5	15113-2359
38	84 8 1	599832529.2	2.6	15114- 18
39	84 8 6	599832543.1	2.7	15114- 39
40	84 8 11	599832538.3	2.4	15114- 59
41	84 8 16	599832533.9	2.3	15116-1416
42	84 8 21	599832544.1	2.4	15116-1437
43	84 8 26	599832538.1	2.5	15116-1509
44	84 8 31	599832536.4	2.5	15116-1525
45	84 9 5	599832535.5	2.3	15116-1539
46	84 9 10	599832541.0	2.2	15116-1552

47	84	9	15	599832536.7	2.7	15116-1728
48	84	9	20	599832533.9	2.9	15116-1741
49	84	9	25	599832539.5	2.5	15081-2129
50	84	9	30	599832537.6	2.5	15084-1707
51	84	10	5	599832535.2	2.1	15116-1812
52	84	10	10	599832535.1	2.3	15116-1846
53	84	10	15	599832532.3	2.1	15084-1716
54	84	10	20	599832536.5	2.2	15079-1529
55	84	10	30	599832539.2	1.8	15079-1605
56	84	11	4	599832544.2	2.0	15079-1618
57	84	11	9	599832538.3	1.9	15079-1629
58	84	11	14	599832542.1	1.8	15079-1639
59	84	11	19	599832532.0	1.6	15079-1650
60	84	11	24	599832538.6	1.9	15079-1702
61	84	11	29	599832538.2	1.7	15136-1325
62	84	12	4	599832537.3	1.5	15180-1906
63	84	12	9	599832535.4	2.0	15180-1919
64	84	12	14	599832534.4	2.0	15180-1937
65	84	12	19	599832541.8	2.4	15155-1644
66	84	12	23	599832541.8	1.5	15116-1933
67	84	12	29	599832538.4	2.2	15116-1955

Mean = 599832536.4 ± .4 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 1.6 cm

Table 7.42

VLBI BASELINE LENGTH EVOLUTION
WESTFORD TO RICHMOND

	DATE			VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	83	12	21	204450178.4	7.0	15156-1320
2	84	1	4	204450177.6	1.2	15109- 158
3	84	1	14	204450176.5	1.3	15095-2036
4	34	1	24	204450177.9	1.8	15156-1357
5	84	2	3	204450178.3	2.3	15109-1452
6	84	2	13	204450177.1	1.5	15109-1648
7	84	2	18	204450180.2	1.7	15109-1721
8	84	3	4	204450173.4	1.1	15109-1932
9	84	3	19	204450176.7	1.3	15109-1803
10	84	3	25	204450175.3	1.2	15109-2010
11	84	4	3	204450179.1	1.8	15085-2253
12	84	4	8	204450177.6	1.9	15109-2045
13	84	4	13	204450173.4	1.8	15112-1756
14	84	4	18	204450176.0	1.4	15156-1441
15	84	4	23	204450175.9	1.9	15112-1844
16	84	4	28	204450175.0	1.7	15112-1918
17	84	5	28	204450176.0	1.5	15112-2051
18	84	6	2	204450176.5	1.3	15112-2100
19	84	6	7	204450173.1	2.7	15112-2109
20	84	6	12	204450175.9	1.8	15156-1455
21	84	6	17	204450172.8	1.0	15113-2130
22	84	6	22	204450176.5	1.7	15113-2211
23	84	6	27	204450176.3	1.4	15113-2227
24	84	7	2	204450173.6	1.3	15113-2320
25	84	7	7	204450176.0	1.3	15113-2331
26	84	7	12	204450176.0	1.4	15113-2343
27	84	7	17	204450178.6	1.4	15113-2359
28	84	7	22	204450175.6	1.8	15114- 9
29	84	7	27	204450172.3	2.6	15113-2302
30	84	8	1	204450172.6	1.5	15114- 18
31	84	8	6	204450177.6	1.2	15114- 39
32	84	8	11	204450177.2	1.5	15114- 59
33	84	8	16	204450173.7	1.4	15116-1416
34	84	8	21	204450175.2	1.4	15116-1437
35	84	8	26	204450177.6	1.4	15116-1509
36	84	8	31	204450174.5	1.5	15116-1525
37	84	9	5	204450174.5	1.3	15116-1539
38	84	9	10	204450174.3	1.1	15116-1552
39	84	9	15	204450175.2	3.0	15116-1728
40	84	9	25	204450176.0	1.5	15081-2129
41	84	9	30	204450174.9	1.4	15084-1707
42	84	10	5	204450176.0	1.2	15116-1812
43	84	10	10	204450176.2	1.4	15116-1846
44	84	10	15	204450172.4	1.2	15084-1716
45	84	10	20	204450173.1	1.1	15079-1529
46	84	10	30	204450173.0	1.1	15079-1605

47	84	11	9	204450173.5	1.1	15079-1629
48	84	11	19	204450173.4	.8	15079-1650
49	84	11	24	204450171.9	.9	15079-1702
50	84	11	29	204450174.3	1.0	15136-1325
51	84	12	4	204450176.7	1.2	15180-1906
52	84	12	9	204450175.1	1.0	15180-1919
53	84	12	14	204450173.5	1.2	15180-1937
54	84	12	19	204450173.5	1.8	15155-1644
55	84	12	23	204450174.5	1.3	15116-1933

Mean = 204450175.0 ± .3 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 1.8 cm

Table 7.43

VLBI BASELINE LENGTH EVOLUTION
WESTFORD TO GILCREEK

DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1 84 8 28	504009986.9	.8	15081-1815

Table 7.44

VLBI BASELINE LENGTH EVOLUTION
WESTFORD TO ALGOPARK

DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1 84 8 28	64261133.0	.6	15081-1815

Table 7.45

VLBI BASELINE LENGTH EVOLUTION
HRAS 085 TO MARPOINT

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	82 10 18	257081337.9	.9	15156-1216

Table 7.46

VLBI BASELINE LENGTH EVOLUTION
HRAS 085 TO PLATTVIL(7258)

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	83 6 6	106049961.9	1.1	15163-1518
2	84 4 17	106049967.3	1.1	15164-1217
3	84 4 22	106049964.1	1.6	15164-1256
4	84 4 25	106049967.6	1.3	15164-1334
5	84 4 26	106049965.1	0.9	15164-1404

Mean = 106049965.2 ± 1.0 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 2.1 cm

C-2

Table 7.47

VLBI BASELINE LENGTH EVOLUTION
HRAS 085 TO HATCREEK

	DATE			VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	83	6	6	193347361.0	1.2	15130-1833
2	83	6	9	193347361.5	1.8	15130-1922
3	83	6	27	193347365.0	1.3	15103-1907
4	83	6	29	193347361.8	1.1	15100-1921
5	84	4	12	193347362.8	.7	15156-1428
6	84	4	17	193347363.5	.8	15149-2056
7	84	4	25	193347365.8	1.0	15149-2106

Mean = 193347363.2 ± .6 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 1.4 cm

Table 7.48

VLBI BASELINE LENGTH EVOLUTION
HRAS 085 TO MOJAVE12

	DATE			VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	83	6	27	131336816.9	.8	15103-1907
2	83	6	28	131336815.7	.9	15107-2011
3	83	6	29	131336814.7	.9	15100-1921
4	83	7	25	131336815.4	.7	15080-2029
5	83	8	8	131336813.9	.7	15107-1526
6	83	8	23	131336816.5	.5	15109-1518
7	83	9	27	131336814.3	.5	15107-1551
8	83	10	12	131336815.3	.5	15106-1813
9	83	10	27	131336815.8	.6	15107-1610
10	83	11	5	131336814.6	.9	15140-1911
11	83	11	8	131336815.8	1.2	15140-1923
12	83	11	21	131336815.9	.5	15106-1840
13	83	12	1	131336815.5	.5	15106-1931
14	84	1	4	131336815.0	.5	15109- 158
15	84	4	12	131336814.2	.6	15156-1428
16	84	4	17	131336816.1	.7	15149-2056
17	84	4	22	131336815.4	.7	15150-1549
18	84	4	25	131336817.8	.8	15149-2106
19	84	4	26	131336815.4	.4	15164-1404

Mean = 131336815.4 ± .2 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 0.8 cm

Table 7.49

VLBI BASELINE LENGTH EVOLUTION
HRAS 085 TO WETTZELL

	DATE			VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	83	11	16	841756142.4	2.4	15095-1954
2	83	12	21	841756140.8	4.6	15156-1320
3	84	1	9	841756148.0	2.8	15095-2015
4	84	1	24	841756149.2	2.5	15156-1357
5	84	1	29	841756152.1	2.8	15109-1424
6	84	2	3	841756147.0	4.4	15109-1452
7	84	2	8	841756150.1	4.6	15109-1618
8	84	2	18	841756153.1	2.5	15109-1721
9	84	2	23	841756145.5	4.3	15116-1829
10	84	2	28	841756149.8	4.3	15109-1908
11	84	3	4	841756162.2	4.5	15109-1932
12	84	3	9	841756147.4	5.0	15109-1953
13	84	3	14	841756146.4	3.3	15078-2037
14	84	3	19	841756141.9	3.2	15109-1803
15	84	3	25	841756147.8	3.2	15109-2010
16	84	4	3	841756156.3	5.6	15085-2253
17	84	4	8	841756144.2	5.5	15109-2045
18	84	4	13	841756152.3	4.2	15112-1756
19	84	4	18	841756151.4	5.1	15156-1441
20	84	4	23	841756144.3	5.5	15112-1844
21	84	4	28	841756138.0	5.3	15112-1918
22	84	5	3	841756135.5	12.	15084-1637
23	84	5	8	841756148.3	5.3	15112-1930
24	84	5	13	841756137.4	6.6	15112-1943
25	84	5	18	841756148.2	4.1	15112-1955
26	84	5	23	841756146.5	6.2	15112-2011
27	84	5	28	841756146.6	3.9	15112-2051
28	84	6	2	841756152.3	4.7	15112-2100
29	84	6	7	841756143.6	7.9	15112-2109
30	84	6	12	841756157.8	5.1	15156-1455
31	84	6	17	841756155.0	3.2	15113-2130
32	84	6	22	841756151.0	5.3	15113-2211
33	84	6	27	841756143.1	4.5	15113-2227
34	84	7	2	841756157.3	4.5	15113-2320
35	84	7	7	841756155.3	4.7	15113-2331
36	84	7	12	841756154.4	4.0	15113-2343
37	84	7	17	841756148.8	4.2	15113-2359
38	84	8	1	841756152.1	4.0	15114- 18
39	84	8	6	841756155.8	4.3	15114- 39
40	84	8	11	841756153.0	4.1	15114- 59
41	84	8	16	841756155.6	4.3	15116-1416
42	84	8	21	841756161.4	4.2	15116-1437
43	84	8	26	841756145.2	4.4	15116-1509
44	84	8	31	841756153.8	4.1	15116-1525
45	84	9	5	841756142.1	3.9	15116-1539
46	84	9	10	841756151.8	3.3	15116-1552

47	84	9	15	841756148.0	4.6	15116-1728
48	84	9	20	841756142.1	5.2	15116-1741
49	84	9	25	841756151.6	4.2	15081-2129
50	84	9	30	841756149.2	3.7	15084-1707
51	84	10	5	841756153.1	3.6	15116-1812
52	84	10	10	841756156.7	4.8	15116-1846
53	84	10	15	841756145.1	3.4	15084-1716
54	84	10	20	841756151.8	3.6	15079-1529
55	84	10	30	841756157.0	3.2	15079-1605
56	84	11	4	841756151.7	3.6	15079-1618
57	84	11	9	841756149.1	3.1	15079-1629
58	84	11	14	841756154.0	3.6	15079-1639
59	84	11	19	841756141.8	2.7	15079-1650
60	84	11	24	841756154.1	3.2	15079-1702
61	84	11	29	841756149.3	3.0	15136-1325
62	84	12	4	841756143.1	2.7	15180-1906
63	84	12	9	841756139.2	3.2	15180-1919
64	84	12	14	841756152.8	3.4	15180-1937
65	84	12	19	841756146.8	4.4	15155-1644
66	84	12	23	841756147.6	2.5	15116-1933
67	84	12	29	841756157.4	3.7	15116-1955

Mean = 841756149.3 ± .6 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 5.2 cm

Table 7.50

VLBI BASELINE LENGTH EVOLUTION
HRAS 085 TO RICHMOND

	DATE			VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	83	12	21	236263258.9	6.8	15156-1320
2	84	1	4	236263280.6	1.0	15109- 158
3	84	1	14	236263282.8	1.2	15095-2036
4	84	1	24	236263282.2	1.4	15156-1357
5	84	2	3	236263284.5	2.0	15109-1452
6	84	2	13	236263282.7	1.7	15109-1648
7	84	2	18	236263288.1	1.3	15109-1721
8	84	3	4	236263283.6	1.4	15109-1932
9	84	3	19	236263281.2	1.3	15109-1803
10	84	3	25	236263281.8	1.3	15109-2010
11	84	4	3	236263287.8	2.2	15085-2253
12	84	4	8	236263281.5	1.8	15109-2045
13	84	4	13	236263286.5	1.7	15112-1756
14	84	4	18	236263281.7	1.7	15156-1441
15	84	4	23	236263281.9	1.9	15112-1844
16	84	4	28	236263279.1	1.8	15112-1918
17	84	5	28	236263280.6	1.6	15112-2051
18	84	6	2	236263283.7	1.5	15112-2100
19	84	6	7	236263277.1	3.0	15112-2109
20	84	6	12	236263282.3	1.8	15156-1455
21	84	6	17	236263283.1	1.1	15113-2130
22	84	6	22	236263284.5	1.9	15113-2211
23	84	6	27	236263279.8	1.5	15113-2227
24	84	7	2	236263279.4	1.5	15113-2320
25	84	7	7	236263282.0	1.3	15113-2331
26	84	7	12	236263282.4	1.3	15113-2343
27	84	7	17	236263278.6	1.3	15113-2359
28	84	7	22	236263277.6	1.8	15114- 9
29	84	7	27	236263280.8	2.9	15113-2302
30	84	8	1	236263281.5	1.4	15114- 18
31	84	8	6	236263281.4	1.1	15114- 39
32	84	8	11	236263285.0	1.4	15114- 59
33	84	8	16	236263284.9	1.4	15116-1416
34	84	8	21	236263281.3	1.3	15116-1437
35	84	8	26	236263281.4	1.3	15116-1509
36	84	8	31	236263281.2	1.4	15116-1525
37	84	9	5	236263280.7	1.3	15116-1539
38	84	9	10	236263279.2	.9	15116-1552
39	84	9	15	236263284.9	3.5	15116-1728
40	84	9	25	236263282.1	1.3	15081-2129
41	84	9	30	236263282.5	1.2	15084-1707
42	84	10	5	236263284.5	1.2	15116-1812
43	84	10	10	236263284.6	1.7	15116-1846
44	84	10	15	236263278.8	1.1	15084-1716
45	84	10	20	236263282.9	1.2	15079-1529
46	84	10	30	236263283.4	1.1	15079-1605

47	84	11	9	236263281.1	1.1	15079-1629
48	84	11	19	236263283.2	.8	15079-1650
49	84	11	24	236263280.6	1.0	15079-1702
50	84	11	29	236263283.6	1.0	15136-1325
51	84	12	4	236263283.6	1.0	15180-1906
52	84	12	9	236263281.2	.9	15180-1919
53	84	12	14	236263282.8	1.1	15180-1937
54	84	12	19	236263282.1	1.5	15155-1644
55	84	12	23	236263279.8	.9	15116-1933

Mean = 236263282.0 ± .3 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 2.0 cm

Table 7.51

VLBI BASELINE LENGTH EVOLUTION
HRAS 085 TO ALGOPARK

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	84 8 24	278714107.4	.6	15129-1302
2	84 8 28	278714107.1	.4	15081-1815

Mean = 278714107.2 ± .2 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 0.1 cm

Table 7.52

VLBI BASELINE LENGTH EVOLUTION
HRAS 085 TO GILCREEK

	DATE			VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	84	8	24	472581235.1	.6	15129-1302
2	84	8	28	472581231.4	.5	15081-1815

Mean = 472581232.9 ± 1.8 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 1.9 cm

Table 7.53

VLBI BASELINE LENGTH EVOLUTION
MOJAVE12 TO HATCREEK

	DATE			VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	83	6	27	72914865.4	1.2	15103-1907
2	83	6	29	72914866.8	.6	15100-1921
3	84	2	23	72914866.9	.9	15149-2028
4	84	2	24	72914866.2	.9	15113-1945
5	84	2	26	72914865.8	.7	15149-2036
6	84	4	12	72914867.5	.5	15156-1428
7	84	4	17	72914868.1	.6	15149-2056
8	84	4	25	72914865.8	.4	15149-2106
9	84	4	26	72914867.0	.7	15164-1404

Mean = 72914866.7 ± .3 cm (scaled 1 sigma)

Weighted rms scatter about the mean = .8 cm

Table 7.54

VLBI BASELINE LENGTH EVOLUTION
MOJAVE12 TO RICHMOND

DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1 84 1 4	359469298.3	1.2	15109- 158

Table 7.55

VLBI BASELINE LENGTH EVOLUTION
MOJAVE12 TO KASHIMA

	DATE			VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	84	1	24	809182412.6	3.3	15116-1449
2	84	2	24	809182411.1	1.8	15113-1945
3	84	7	28	809182412.6	1.3	15128-1715
4	84	8	4	809182414.4	1.7	15129-1213
5	84	8	30	809182424.4	2.8	15158-1424
6	84	9	2	809182414.4	2.0	15128-1618

Mean = 809182413.9 ± 1.4 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 3.2 cm

Table 7.56

VLBI BASELINE LENGTH EVOLUTION
MOJAVE12 TO PLATTVIL(7258)

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	84 4 17	119631698.3	0.9	15164-1217
2	84 4 22	119631693.5	1.1	15164-1256
3	84 4 25	119631696.3	1.2	15164-1334
4	84 4 26	119631694.1	0.7	15164-1404

Mean = 119631695.4 ± 1.1 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 1.9 cm

Table 7.57

VLBI BASELINE LENGTH EVOLUTION
MOJAVE 12 TO KAUAI

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	84 7 7	430358122.6	.8	15128-1705
2	84 7 21	430358116.9	.5	15128-1434
3	84 7 28	430358121.8	.7	15128-1715
4	84 8 4	430358125.0	1.1	15129-1213

Mean = 430358120.2 ± 1.7 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 3.0 cm

Table 7.58

VLBI BASELINE LENGTH EVOLUTION
MOJAVE12 TO GILCREEK

	DATE			VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	84	7	7	381620921.3	.8	15128-1705
2	84	7	21	381620920.4	.5	15128-1434
3	84	7	28	381620919.6	.6	15128-1715
4	84	8	4	381620922.5	.9	15129-1213
5	84	8	30	381620919.9	.9	15158-1424
6	84	9	2	381620917.8	.5	15128-1618

Mean = 381620919.8 ± .6 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 1.4 cm

Table 7.59

VLBI BASELINE LENGTH EVOLUTION
MOJAVE12 TO KWAJAL26

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	84 7 7	757693863.4	1.6	15128-1705
2	84 7 21	757693853.6	1.6	15128-1434
3	84 7 28	757693848.9	1.2	15128-1715
4	84 8 4	757693861.5	1.5	15129-1213

Mean = 757693855.5 ± 3.5 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 6.1 cm

Table 7.60

VLBI BASELINE LENGTH EVOLUTION
MOJAVE12 TO WETTZELL

	DATE			VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	84	8	30	858897646.5	2.8	15158-1424
2	84	9	2	858897646.2	1.9	15128-1618

Mean = 858897646.3 ± .1 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 0.1 cm

Table 7.61

VLBI BASELINE LENGTH EVOLUTION
WETTZELL TO RICHMOND

	DATE			VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	83	12	21	758839856.2	17.	15156-1320
2	84	1	24	758839854.2	3.9	15156-1357
3	84	2	3	758839857.5	6.0	15109-1452
4	84	2	18	758839864.7	3.3	15109-1721
5	84	3	4	758839854.6	2.7	15109-1932
6	84	3	19	758839853.4	2.5	15109-1803
7	84	3	25	758839854.8	2.8	15109-2010
8	84	4	3	758839855.4	3.5	15085-2253
9	84	4	8	758839849.2	4.3	15109-2045
10	84	4	13	758839854.2	3.5	15112-1756
11	84	4	18	758839848.9	2.8	15156-1441
12	84	4	23	758839846.2	4.4	15112-1844
13	84	4	28	758839847.0	3.4	15112-1918
14	84	5	28	758839849.2	2.8	15112-2051
15	84	6	2	758839859.1	2.9	15112-2100
16	84	6	7	758839839.4	6.2	15112-2109
17	84	6	12	758839853.8	4.1	15156-1455
18	84	6	17	758839856.1	2.5	15113-2130
19	84	6	22	758839858.5	4.2	15113-2211
20	84	6	27	758839858.9	3.4	15113-2227
21	84	7	2	758839848.4	3.2	15113-2320
22	84	7	7	758839856.2	3.8	15113-2331
23	84	7	12	758839852.3	3.7	15113-2343
24	84	7	17	758839859.2	3.6	15113-2359
25	84	8	1	758839844.0	3.6	15114- 18
26	84	8	6	758839852.6	3.7	15114- 39
27	84	8	11	758839852.6	3.8	15114- 59
28	84	8	16	758839847.1	3.2	15116-1416
29	84	8	21	758839859.5	3.4	15116-1437
30	84	8	26	758839855.3	3.3	15116-1509
31	84	8	31	758839850.3	3.5	15116-1525
32	84	9	5	758839853.8	3.3	15116-1539
33	84	9	10	758839852.5	2.8	15116-1552
34	84	9	15	758839854.1	5.1	15116-1728
35	84	9	25	758839856.8	3.6	15081-2129
36	84	9	30	758839854.0	3.2	15084-1707
37	84	10	5	758839856.0	3.4	15116-1812
38	84	10	10	758839849.8	3.5	15116-1846
39	84	10	15	758839837.9	3.0	15084-1716
40	84	10	20	758839848.8	3.1	15079-1529
41	84	10	30	758839855.6	2.8	15079-1605
42	84	11	9	758839851.2	2.5	15079-1629
43	84	11	19	758839849.9	2.3	15079-1650
44	84	11	24	758839846.4	2.5	15079-1702
45	84	11	29	758839852.2	2.5	15136-1325
46	84	12	4	758839856.9	2.5	15180-1906

47	84	12	9	758839851.1	2.8	15180-1919
48	84	12	14	758839848.6	3.1	15180-1937
49	84	12	19	758839849.5	3.7	15155-1644
50	84	12	23	758839858.4	2.4	15116-1933

Mean = 758839852.7 ± .7 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 4.8 cm

Table 7.62

VLBI BASELINE LENGTH EVOLUTION
WETTZELL TO GILCREEK

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	84 8 30	685677149.6	2.0	15158-1424
2	84 9 2	685677151.2	1.6	15128-1618

Mean = 685677150.6 ± .8 cm (scaled 1 sigma)

Weighted rms scatter about the mean = .8 cm

Table 7.63

VLBI BASELINE LENGTH EVOLUTION
WETTZELL TO KASHIMA

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	84 8 30	847582715.9	3.6	15158-1424
2	84 9 2	847582715.3	2.8	15128-1618

Mean = 847582715.5 ± .3 cm (scaled 1 sigma)

Weighted rms scatter about the mean = .3 cm

Table 7.64

VLBI BASELINE LENGTH EVOLUTION
KASHIMA TO HATCREEK

DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1 84 2 24	755732823.4	1.9	15113-1945

Table 7.65

VLBI BASELINE LENGTH EVOLUTION
KASHIMA TO KAUAI

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	84 7 28	570936049.6	.9	15128-1715
2	84 8 4	570936047.4	1.3	15129-1213

Mean = 570936048.8 ± 1.0 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 1.1 cm

Table 7.66

VLBI BASELINE LENGTH EVOLUTION
KASHIMA TO KWAJAL26

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	84 7 28	393633074.7	.9	15128-1715
2	84 8 4	393633078.3	1.0	15129-1213

Mean = 393633076.4 ± 1.8 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 1.8 cm

Table 7.67

VLBI BASELINE LENGTH EVOLUTION
KASHIMA TO GILCREEK

	DATE			VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	84	7	28	542710439.8	1.0	15128-1715
2	84	8	4	542710436.7	.9	15129-1213
3	84	8	30	542710443.8	1.5	15158-1424
4	84	9	2	542710438.3	1.3	15128-1618

Mean = 542710438.8 ± 1.3 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 2.3 cm

Table 7.68

VLBI BASELINE LENGTH EVOLUTION
KAUAI TO GILCREEK

	DATE			VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	84	7	7	472811476.2	1.0	15128-1705
2	84	7	21	472811474.5	.6	15128-1434
3	84	7	28	472811478.8	.7	15128-1715
4	84	8	4	472811478.9	1.0	15129-1213

Mean = 472811476.7 ± 1.2 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 2.0 cm

Table 7.69

VLBI BASELINE LENGTH EVOLUTION
KAUAI TO KWAJAL26

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	84 7 7	372519631.6	1.2	15128-1705
2	84 7 21	372519626.3	1.2	15128-1434
3	84 7 28	372519628.5	.9	15128-1715
4	84 8 4	372519632.9	1.2	15129-1213

Mean = 372519629.7 ± 1.4 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 2.5 cm

Table 7.70

VLBI BASELINE LENGTH EVOLUTION
GILCREEK TO KWAJAL26

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	84 7 7	671967667.1	1.7	15128-1705
2	84 7 21	671967663.3	1.5	15128-1434
3	84 7 28	671967658.7	1.2	15128-1715
4	84 8 4	671967665.9	1.0	15129-1213

Mean = 671967663.6 ± 1.9 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 3.2 cm

Table 7.71

VLBI BASELINE LENGTH EVOLUTION
GILCREEK TO ALGOPARK

	DATE	VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	84 8 24	447569934.5	.8	15129-1302
2	84 8 28	447569937.3	.4	15081-1815

Mean = 447569936.6 ± 1.2 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 1.1 cm

Table 7.72

VLBI BASELINE LENGTH EVOLUTION
HATCREEK TO PLATTVIL(7258)

	DATE			VALUE (cm)	FORMAL ERROR (cm)	RUN CODE
1	83	6	6	141631405.5	0.7	15163-1518
2	84	4	17	141631406.1	1.0	15164-1217
3	84	4	25	141631406.1	1.3	15164-1334
4	84	4	26	141631402.6	0.7	15164-1404

Mean = 141631404.6 cm ± 0.9 cm (scaled 1 sigma)

Weighted rms scatter about the mean = 1.5 cm

TABLE 8

VLBI EARTH ROTATION PARAMETERS

DATE			VALUES			FORMAL ERRORS			RUN CODE
			X-POLE	Y-POLE	UT1-TAI	XP	YP	UT1	
76	9	10	2260		-1498653	26		20	15140-1432
76	9	30	2004		-1505143	26		22	15088-1742
76	10	5	1865		-1506754	20		16	15088-1753
76	10	10	1834		-1508460	22		17	15119-2012
76	10	12	1821		-1509059	18		14	15117-2352
76	10	15	1703		-1509941	21		17	15088-1804
76	12	14	-26		-1528480	15		11	15118- 6
76	12	16	-51		-1529245	17		13	15118- 31
77	3	28	-2002		-1558404	15		11	15119-1942
77	6	27	888		-1584453	23		17	15119-2030
77	9	25		2322	-1603604		87	21	15123-1417
77	12	14	715		-1629264	26		21	15085-2217
78	1	14	-355		-1639567	24		20	15085-2229
78	2	25	-1595	1144	-1653270	17	66	9	15120-1810
79	8	4	-370		-1798373	14		11	15118- 55
79	11	26	1458		-1826096	24		18	15123-1357
80	4	12	59		-1861120	6		4	15117-2242
80	7	27	-285	3028	-1883452	6	7	3	15144-1746
80	7	28	-254	3031	-1883631	8	10	4	15144-1901
80	9	27	-161	3387	-1895943	10	8	4	15095-2324
80	9	28	-161	3378	-1896235	10	8	4	15095-2258
80	9	29	-122	3387	-1896514	6	6	3	15096-1728
80	9	30	-66	3363	-1896788	13	16	6	15107-1449
80	10	1	-158	3447	-1896956	8	11	4	15107-1816
80	10	2	-201	3403	-1897144	15	29	9	15109- 105
80	10	3	-124	3426	-1897401	7	8	4	15107-1905
80	10	17	-40	3510	-1900686	REFERENCE DAY			15096-1759
80	10	18	-27	3529	-1900923	6	7	3	15096-1816
80	10	19	-32	3557	-1901176	6	7	3	15096-1834
80	10	20	-45	3546	-1901445	7	6	3	15096-1933
80	10	21	-30	3545	-1901741	5	5	2	15098-1618
80	10	22	-50	3558	-1902046	6	8	3	15098-1651
80	10	23	-15	3539	-1902386	4	4	2	15084-1855
80	11	4	20		-1905562	15		11	15078-2102
80	12	2	469	3643	-1912487	12	9	5	15084-1831
80	12	20	679	3598	-1916860	8	6	3	15078-1658
81	1	8	843		-1921101	16		13	15098-1702
81	1	23	887	3312	-1924919	11	7	4	15098-1719
81	2	13	1039		-1929580	14		11	15119-1633
81	2	28	989	3022	-1932928	17	12	7	15085-2309
81	3	17	974		-1937803	18		15	15085-2315
81	5	14	1095		-1952995	25		20	15140-1507
81	6	17	837		-1960614	8		7	15103-1732
81	6	25	779		-1961868	42		36	15085-2322
81	7	2	814		-1963017	32		28	15078-1940
81	7	9	804		-1963962	32		27	15085-2329
81	7	16	722		-1964634	56		48	15085-2334

DATE	VALUES			FORMAL ERRORS			RUN CODE
	X-POLE	Y-POLE	UT1-TAI	XP	YP	UT1	
81 7 23	706		-1965480	18		14	15085-2341
81 7 30	692		-1966650	25		21	15085-2347
81 8 6	540		-1967806	35		31	15085-2353
81 8 27	165		-1971020	27		22	15086-1312
81 9 3	-30		-1971988	36		30	15086-1323
81 9 10	-95		-1973005	26		21	15086-1340
81 9 17	-136		-1974485	28		22	15086-1356
81 9 24	-268		-1976009	32		25	15078-2048
81 10 1	-466		-1977682	24		18	15078-2055
81 10 16	-638		-1981157	28		22	15086-1412
81 10 22	-727	2307	-1982519	16	13	7	15098-1757
81 10 29	-741		-1984308	21		18	15086-1423
81 11 5	-790		-1985750	27		21	15086-1433
81 11 11	-943		-1987186	16		13	15086-1445
81 11 19	-1008	2714	-1989000	6	18	5	15098-1834
81 11 20	-977	2770	-1989262	4	6	2	15100-1646
81 11 25	-961		-1990390	27		23	15088-1953
81 12 3	-978		-1991876	30		25	15088-2010
81 12 17	-955		-1995151	21		17	15086-1459
81 12 23	-886		-1996592	20		16	15088-2021
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82 1 7	-726		-1999730	17		14	15088-2048
82 1 14	-595		-2001240	21		16	15088-2101
82 1 21	-493		-2002718	17		14	15088-2110
82 1 28	-411		-2003816	24		20	15088-2119
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82 3 4	488		-2011725	27		24	15088-2159
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82 4 14	1279		-2021740	43		36	15088-2241
82 4 20	1543	4007	-2023174	14	13	7	15089-1931
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82 5 4	1841		-2027088	21		17	15089-1950
82 5 11	1968		-2028836	24		20	15089-1958
82 5 18	2025		-2030080	22		18	15089-2012
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82 6 17	2412	2700	-2036525	11	11	5	15149-2005
82 6 19	2428	2647	-2036969	9	6	4	15133-1533
82 6 20	2369	2640	-2037152	13	10	5	15091-1433
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82 6 22	2390	2586	-2037510	8	10	4	15107-1957
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82 7 7	2305		-2039765	32		28	15100-1956
82 7 13	2279		-2040578	41		36	15089-2349
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DATE			VALUES			FORMAL ERRORS			RUN CODE
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82	9	28	511		-2054349	26		21	15091-1245
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DATE			VALUES			FORMAL ERRORS			RUN CODE
			X-POLE	Y-POLE	UT1-TAI	XP	YP	UT1	
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84	1	5	-1403		-2161019	8		6	15109- 205
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DATE			VALUES			FORMAL ERRORS			RUN CODE
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84	8	12	2786	4298	-2193422	8	8	4	15114- 105
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DATE	VALUES			FORMAL ERRORS			RUN CODE
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84 10 1	3224	2409	-2200737	9	8	5	15084-1709
84 10 6	3151	2242	-2201452	7	8	4	15116-1817
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84 10 16	2957	1843	-2203185	8	8	5	15084-1719
84 10 21	2902	1709	-2203946	7	8	4	15065-1442
84 10 26	2836	1529	-2205182	8	7	4	15079-1555
84 10 27	2763		-2205355	13		9	15084-1732
84 10 31	2689	1399	-2205948	7	7	4	15079-1610
84 11 5	2573	1239	-2206805	11	9	5	15079-1620
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84 11 15	2323	964	-2208310	9	7	4	15079-1642
84 11 16		929	-2208454		13	5	15084-1742
84 11 20	2225	848	-2209329	6	6	4	15079-1653
84 11 25	2063	758	-2210298	7	7	4	15079-1704
84 11 30	1859	647	-2210984	7	7	4	15079-1715
84 12 5	1689	510	-2211887	8	7	4	15180-1911
84 12 10	1505	414	-2212605	7	8	5	15180-1922
84 12 15	1268	362	-2213302	7	8	4	15180-1942
84 12 20	1003	294	-2214226	10	10	6	15116-1917
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84 12 30	531	195	-2215459	12	10	6	15116-2002

Units are 0."0001 for x- and y-pole, and 0.00001 seconds for UT1.

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16. Abstract

The Goddard VLBI group reports the results of analyzing the fixed observatory VLBI data available to the Crustal Dynamics Project through the end of 1984. All POLARIS/IRIS full-day data are included. The mobile site at Platteville, Colorado is also included since its occupation bears on the study of plate stability. Data from 1980 through 1984 were used to obtain the catalog of site and radio source positions labeled S284C. Using this catalog two types of one-day solutions were made: 1) to estimate site and baseline motions and 2) to estimate earth rotation parameters. *A priori* earth rotation parameters were interpolated to the epoch of each observation from BIH Circular D.

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